MHC-2750

SERVICE MANUAL

6202

US Model
Canadian Model
AEP Model
UK Model

- MHC-2750 is composed of following models. As for the service manual, it is issured for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR MHC-2750

AMPLIFIER, CASSETTE DECK	DXA-H2750	6187 2/11/03/6
CD PLAYER	CDP-H3750	V13752 2/12/02/5
TUNER	ST-H2750	6169 2/15/02/5
SPEAKER SYSTEM	SS-H2750	6137

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

SPECIFICATIONS

Power requirements
US, Canadian model:
120 V AC, 60 Hz
AEP, G, IT model:
220 V—230 V AC, 50/60 Hz
UK model:
240 V AC, 50 Hz

Power consumption AEP, G, IT model: 110 watts
UK model: 235 watts
US model: 105 watts
Canadian model: 115 watts

Dimensions Approx, 225 × 365 × 310 mm (w/h/d)
($8\,{}^{7}/_{8} \times 14\,{}^{3}/_{8} \times 12\,{}^{1}/_{4}$ inches)
incl. projecting parts and controls

Weight Approx. 11.3 kg (24 lb 15 oz)

Supplied accessories
Remote Commander (1)
(US, Canodian model: RM-S375)
(AEP, UK, G, IT model: RM-S375X)
Sony SUM-3 (NS) batteries (2)
AM loop antenna (1)
FM antenna (1)
AC power cord (1)
Flat cord (2)
Speaker cord (2)
(US, Canadian model)

Design and specifications subject to change without notice.

- G : Germany model
- IT : Italian model

PARTS LIST

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS *******************************	
	1-501-369-11	ANTENNA (AEP, UK, G, IT)	
	1-501-374-11	ANTENNA, LOOP	
	1-557-954-21	CORD, SPEAKER CONNECTION (US, Canadian)	
⚠	1-558-032-11	CORD, POWER (UK)	
	1-574-927-21	CORD (WITH CONNECTOR) (DXA-ST)	
⚠	1-575-131-11	CORD, POWER (AEP, UK, G, IT)	
⚠	1-575-706-11	CORD, POWER (US, Canadian)	
	1-693-168-11	REMOTE COMMANDER (RM-S375) (US, Canadian)	
	1-693-169-11	REMOTE COMMANDER (RM-S375X) (AEP, UK, G, IT)	
	1-696-412-11	CORD (WITH CONNECTOR) (DXA-CDP)	
	3-694-922-01	SHEET, PROTECTION (SS)	
	3-755-706-11	MANUAL, INSTRUCTION (AEP, UK) (ENGLISH, FRENCH, SPANISH, CHINESE, DUTCH)	
	3-755-706-21	MANUAL, INSTRUCTION (US, Canadian) (ENGLISH, FRENCH)	
	3-755-706-41	MANUAL, INSTRUCTION (AEP, G, IT) (GERMAN, ITALIAN, SWEDISH, PORTUGUESE)	
*	4-945-080-01	CUSHION (SS)	
*	4-953-551-01	CUSHION (R) (ST)	
*	4-953-633-01	CUSHION (L) (ST)	
*	4-953-667-01	CUSHION (R) (CDP)	
*	4-953-668-01	CUSHION (L) (CDP)	
*	4-953-669-01	CUSHION (R) (DXA)	
*	4-953-670-01	CUSHION (L) (DXA)	
*	4-954-962-01	INDIVIDUAL CARTON (AEP, UK) (CDP, DXA, ST)	
*	4-954-964-01	INDIVIDUAL CARTON (AEP, G, IT) (CDP, ST)	
*	4-954-965-01	INDIVIDUAL CARTON (US, Canadian) (CDP, DXA, SS, ST)	
	9-910-999-33	INSTRUCTION (US)	

MINI Hi-Fi COMPONENT SYSTEM

SONY®

MICROFILM

9-957-395-11

Sony Corporation
Audio Group

English
92H0493-1
Printed in Japan
© 1992. 8

Published by Customer Relations and Service Group

6202

SONY-06169

ST-H2750/H3750

SERVICE MANUAL

AEP Model
UK Model

Photo is ST-H3750

This set is the tuner
section in MHC-2750/3750

SPECIFICATIONS

System	FM stereo, FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 — 108 MHz
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	AEP, UK, Germany model: MW: 531—1,602kHz LW: 153—279kHz Italian model: MW: 522—1,611kHz LW: 144—288kHz
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz

Design and specifications subject to change without notice.

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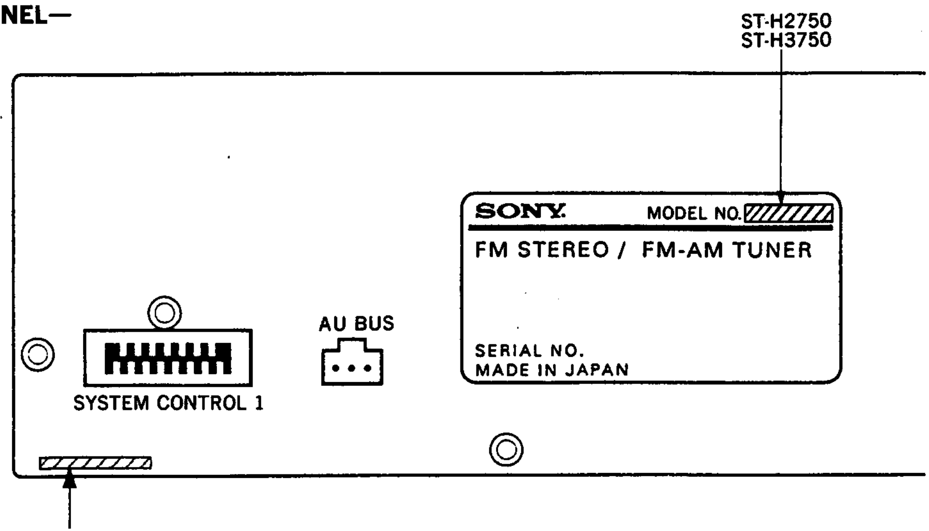
MICROFILM

FM STEREO/FM-AM TUNER

SONY®

MODEL IDENTIFICATION

—BACK PANEL—


ST-H2750
ST-H3750
SONY
MODEL NO.
FM STEREO / FM-AM TUNER
SERIAL NO.
MADE IN JAPAN
AU BUS
SYSTEM CONTROL 1

4-953-719-11 (AE) : ST-H2750: AEP, UK model
4-953-719-21 (IT) : ST-H2750: Italian (IT) model
4-953-719-31 (AE4): ST-H2750: Germany (G) model
4-953-719-51 (AE) : ST-H3750: AEP, UK model
4-953-719-61 (IT) : ST-H3750: Italian (IT) model

SECTION 1
SERVICING NOTES

1-1. SUPPLY OF POWER DURING SERVICES

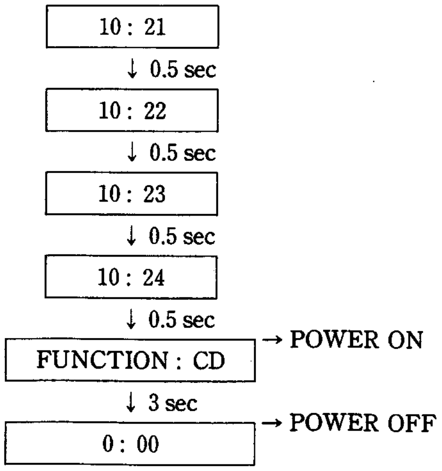
Because the equipment is not provided with any power supply, it is operated with power supplied from the amplifier DXA-H2750/H3750 used in the series. The equipment requires the following 4 types of voltages. Therefore, connect the equipment to DXA-H2750/H3750 for services such as repairing with power supplied, because it will be too complicated to supply these voltages individually.

VOLTAGE	MAJOR CIRCUIT IN USE
AC 3.9V	FL tube filament voltage (VF)
DC −24V	Display controller IC701 grid voltage (VG)
DC 5.6V	Display controller IC701, Tuner PLL IC81 Vcc
DC 12V	Tuner RF, FM/AM DET IC21 Vcc

1-2. SERVICE MODE TO CHECK TIMER ON-OFF

It is possible to check whether the timer normally functions while being connected with an amplifier.

(1) Connect the equipment to the amplifier DXA-H2750/H3750 and set the SYSTEM POWER switch to STAND-BY state.
(2) Set the time of the tuner to any time.
(3) Press 3 switches "BAND", "−" and "MEMORY/NEXT" at the same time (while pressing "BAND" and "−" beforehand, finally press "MEMORY/NEXT")
(4) FL display tube


10 : 21
↓ 0.5 sec
10 : 22
↓ 0.5 sec
10 : 23
↓ 0.5 sec
10 : 24
↓ 0.5 sec
FUNCTION : CD
→ POWER ON
↓ 3 sec
0 : 00
→ POWER OFF

(5) Completion

Note : After completion of the checking above, data preset in the memory IC702 is erased while resetting the memory to the next page state upon shipping from the works, so be sure to recover the same frequency as that before the repairing.

• Frequencies initially preset

	AEP, UK, Germany model			Italian model		
	FM	MW	LW	FM	MW	LW
1	87.5MHz	531kHz	153kHz	87.5MHz	522kHz	144kHz
2	88.0MHz	603kHz	162kHz	88.0MHz	603kHz	162kHz
3	98.0MHz	999kHz	216kHz	98.0MHz	999kHz	216kHz
4	100.0MHz	1404kHz	270kHz	100.0MHz	1404kHz	270kHz
5	108.0MHz	1602kHz	279kHz	108.0MHz	1611kHz	288kHz
6—20	*1	*2	*2	*1	*2	*2

*1 The same frequency values are set for the preset memory No. 6—No. 10, No. 11—No. 15 and No. 16—No. 20 as for No. 1—No. 5 respectively.

*2 The same frequency values are set for the preset memory No. 6—No. 10 as for No. 1—No. 5.

1-3. SERVICE MODE TO CHECK FL TUBE AND KEY INPUT

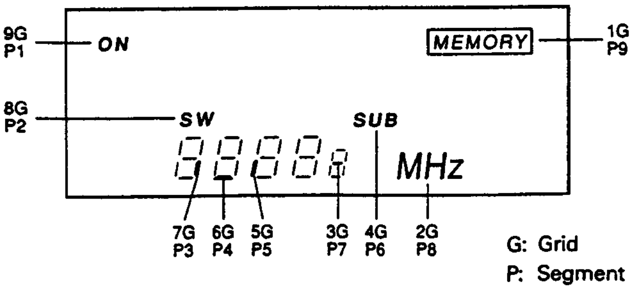
It is possible to check FL tube all ON grid, segment and key input.

(1) Connect the equipment to the amplifier DXA-H2750/H3750 and remove the AC cord of the amplifier out of the AC receptacle.

(2) While pressing 3 switches "BAND", "−" and "MEMORY/NEXT" at the same time, insert the AC cord of the amplifier into the receptacle.

(3) Thus, all FL display tubes light up. By pressing "+" or "TIMER CONTROL" in this state, partial lighting or key input checking, respectively, is effected.

Partial lighting: Indicates the mode to check complete connection between the grid and segment of the FL tube. The condition is normal when the following indication is effected. By pressing "+" or "−" in the partial lighting mode, the status returns to key input checking or all ON in (3), respectively.



Key input checking: Shows the mode to check key input into 9 keys on the front panel. "0" is indicated at first, and every time a different key is pressed, indicated number is increased. After completion of pressing all 9 keys, "PASS" is indicated.
(Once a key is pressed, pressing it again is rejected.)

(4) After the completion of the checking, the equipment recovers normal operation by once removing the AC cord and inserting it again into the AC receptacle.

1-4. HOW TO FORCEFULLY TURN POWER ON

The equipment is not provided with any power switch. Therefore, power ON/OFF is controlled in the amplifier side. However, even without an amplifier, power is supplyable to the equipment according to the following methods provided any type of power is available, e.g. using a special jig or supplying the 4 types of voltages individually.
(When power is supplied from the amplifier, power is turned ON only for the tuner.)

(1) Supply power.

(2) Press 3 switches "STEREO/MONO", "−" and "MEMORY/NEXT" at the same time.
(Press "STEREO/MONO" and "−" beforehand, and finally press "MEMORY/NEXT".)

However, when the equipment is started up by the methods above, service modes TIMER ON/OFF and FL tube and key input checking are not operable.

SECTION 2
GENERAL

This section is extracted from instruction manual.

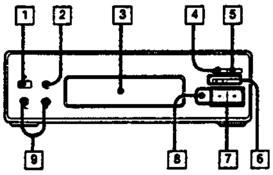
Parts Identification

Refer to the pages indicated in ● for use of the buttons.

Tuner Section A

1. Remote control sensor
2. REC/TIMER button ●
3. Display window
4. MEMORY/NEXT button ● ● ● ●
5. STEREO/MONO (stereo/monaural) button ●
6. MODE button and TUNING/PRESET indicators ● ● ●
7. TUNING PRESET/TIMER –/+ buttons
8. BAND selector ●
9. WAKE UP TIMER 1, 2 /CLOCK SET buttons ● ●

A

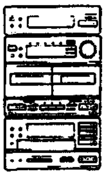


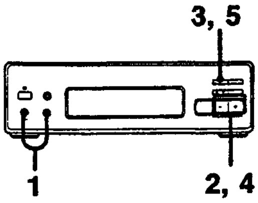
Clock Setting

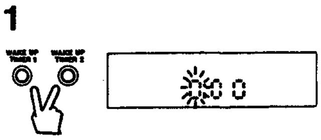
Setting the Clock

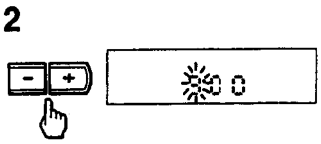
Example: Set to 9:25 in the morning.

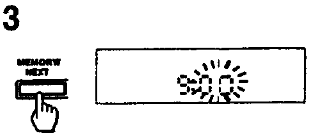
1. **Press WAKE UP TIMER 1 and 2 at the same time.**
2. **Set the hour with the – or + button.**
3. **Press MEMORY/NEXT.**
4. **Set the minute with the – or + button.**
5. **Press MEMORY/NEXT.**
   The clock starts operating.

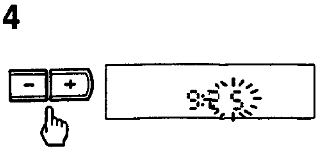


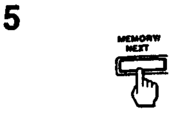












When a power interruption occurs
The clock and timer settings are all erased. and "0:00" will flash on the display.

To change the frequency display to the time display
Press CLOCK DISPLAY on the remote commander. Press it again to change to the frequency display.

22

Radio Reception

The automatic tuning allows you to receive stations whose signal is strong enough. When the signal is too weak, use the manual tuning.

Tuning in Automatically

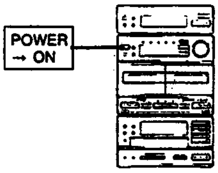
1 **Press BAND repeatedly until the desired band appears.**
As you press BAND, the band changes as follows:

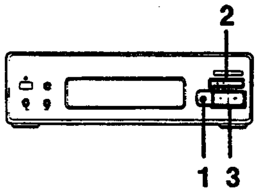
FM → MW → LW
↑___________|

2 **Press MODE so that the TUNING indicator lights up.**

3 **Keep – or + depressed for more than 1 second.**
"AUTO" appears on the display and the unit tunes in a station automatically.

Repeat step 3 until the desired station appears.





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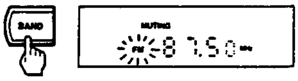

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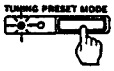

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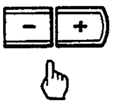


Radio Reception

Tuning in Manually

1 **Press BAND repeatedly until the desired band appears.**

2 **Press MODE so that the TUNING indicator lights up.**

3 **Press – or + repeatedly until the desired station appears.**

Indicators on the display

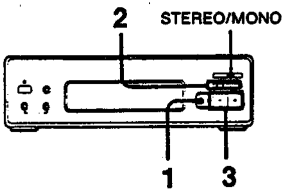
TUNED:	Appears when a station with sufficient signal strength is tuned in.
STEREO:	Appears when an FM stereo program with sufficient signal strength is received.

Antenna adjustment A

For MW and LW reception, find the best location for the supplied AM loop antenna.

When an FM program is noisy or hard to receive

Press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will be improved. Press the button again to restore the stereo effect.



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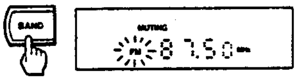

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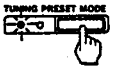

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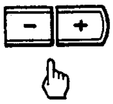

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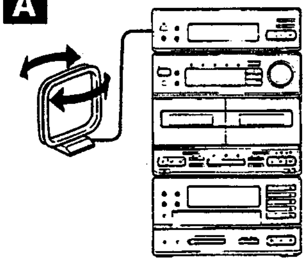


Radio Reception

Storing Stations

You can store FM stations and MW/LW stations in a desired sequence, so that you can tune in the stored station directly by entering the preset station number.

- **You can store 20 FM stations, 10 MW stations, and 10 LW stations.**

This operation is not possible with the remote commander.

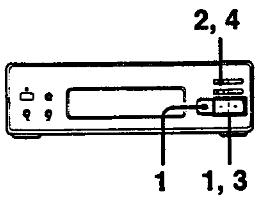
1. **Tune in the desired station.**
2. **Press MEMORY/NEXT.**
   "MEMORY" and the preset station numbers appear on the display.
3. **While "MEMORY" is on (for several seconds), press – or + to select a desired preset number.**
4. **Press MEMORY/NEXT.**
   "MEMORY" disappears, and the station is stored.

Repeat steps 1 to 4 for each station to be stored.

If you cannot store a station successfully
Press MEMORY/NEXT again so that "MEMORY" appears, and then proceed with steps 3 and 4 above.
Be sure to operate while "MEMORY" is on (about 4 seconds).

When you have selected the wrong preset station number
Press MEMORY/NEXT again and then proceed with the steps 3 and 4.

To change the preset station
Store a desired station at the desired preset number by proceeding with the above steps.
The station previously preset will be replaced with the new station.
Erasing only is not possible.



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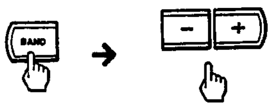

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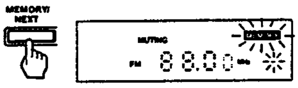

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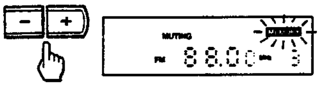

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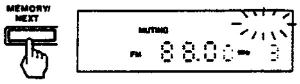


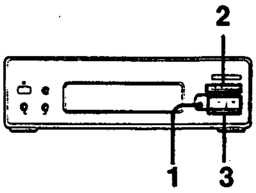
Radio Reception

To Tune in a Preset Station

1. **Press BAND to select a desired band.**
2. **Press MODE so that the PRESET indicator lights up.**
3. **Press – or + to select the desired preset station number.**

To tune in a preset station directly A

(Possible only with the remote commander)
1. Set the TUNER/EQ/CD numeric button function selector to TUNER.
2. Press BAND to select a desired band.
3. Press the numeric buttons to select the desired preset station number.



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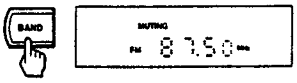

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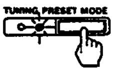

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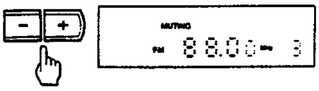

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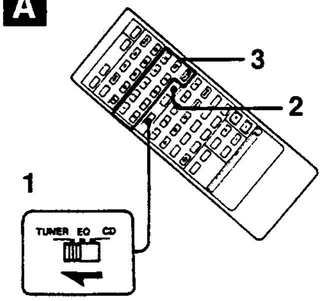


SECTION 3
ELECTRICAL ADJUSTMENTS

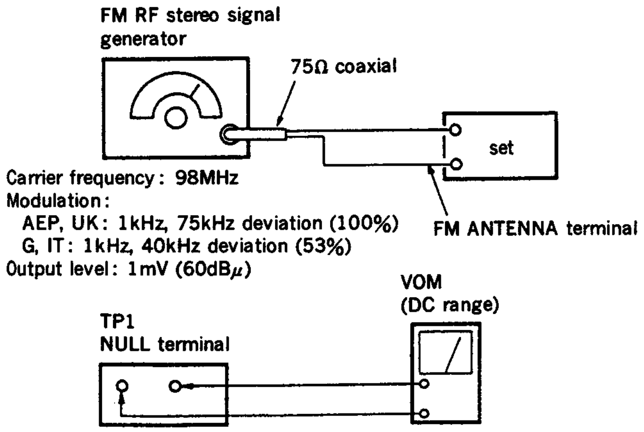
Precautions in Repairing

If the front end unit fails, it is difficult to repair the inner circuits, so replace the entire front end unit.

FM SECTION

FM Discriminator Adjustment (NULL Adjustment)

Setting:


FM RF stereo signal generator
75Ω coaxial
set
FM ANTENNA terminal
TP1
NULL terminal
VOM
(DC range)

Carrier frequency: 98MHz
Modulation:
AEP, UK: 1kHz, 75kHz deviation (100%)
G, IT: 1kHz, 40kHz deviation (53%)
Output level: 1mV (60dBμ)

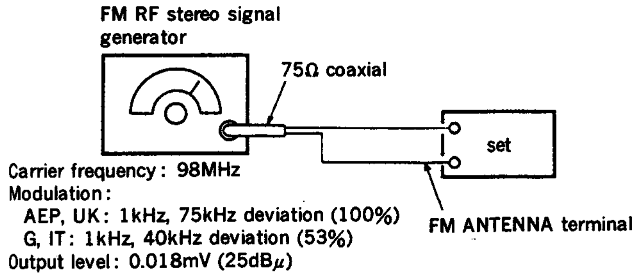
Procedure:

1. Tune the set to 98MHz.
2. Adjust T21 for 0V reading on the VOM.

Note: FM Tuning Level adjustment should be made after FM discriminator alignment.

FM Tuning Level Adjustment

Setting:


FM RF stereo signal generator
75Ω coaxial
set
FM ANTENNA terminal

Carrier frequency: 98MHz
Modulation:
AEP, UK: 1kHz, 75kHz deviation (100%)
G, IT: 1kHz, 40kHz deviation (53%)
Output level: 0.018mV (25dBμ)

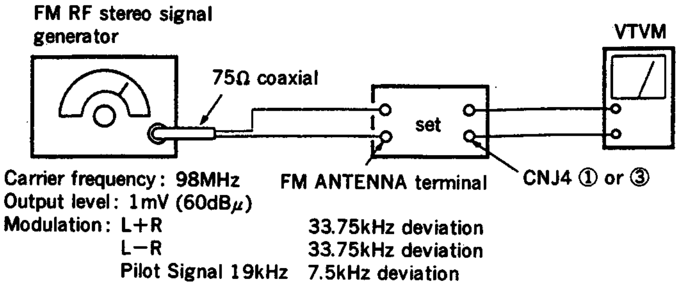
Procedure:

1. Tune the set to 98MHz.
2. Adjust RV24 so that the TUNED indicator goes on.

- G : Germany model
- IT: Italian model

FM Stereo Separation Adjustment

Setting:


FM RF stereo signal generator
75Ω coaxial
set
VTVM
FM ANTENNA terminal
CNJ4 ① or ③

Carrier frequency: 98MHz
Output level: 1mV (60dBμ)
Modulation: L+R 33.75kHz deviation
L−R 33.75kHz deviation
Pilot Signal 19kHz 7.5kHz deviation

Procedure:

Tune the set to 98MHz.

FM stereo Signal generator Output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV21 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV21 for minimum reading.

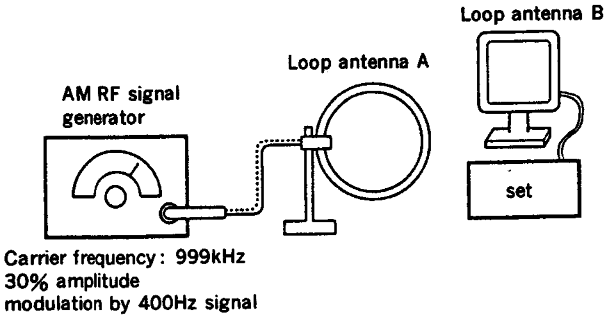
L-CH Stereo separation: Ⓐ—Ⓑ
R-CH Stereo separation: Ⓒ—Ⓓ

The separations of both channels should be equal.

AM SECTION

AM Tuning Level Adjustment

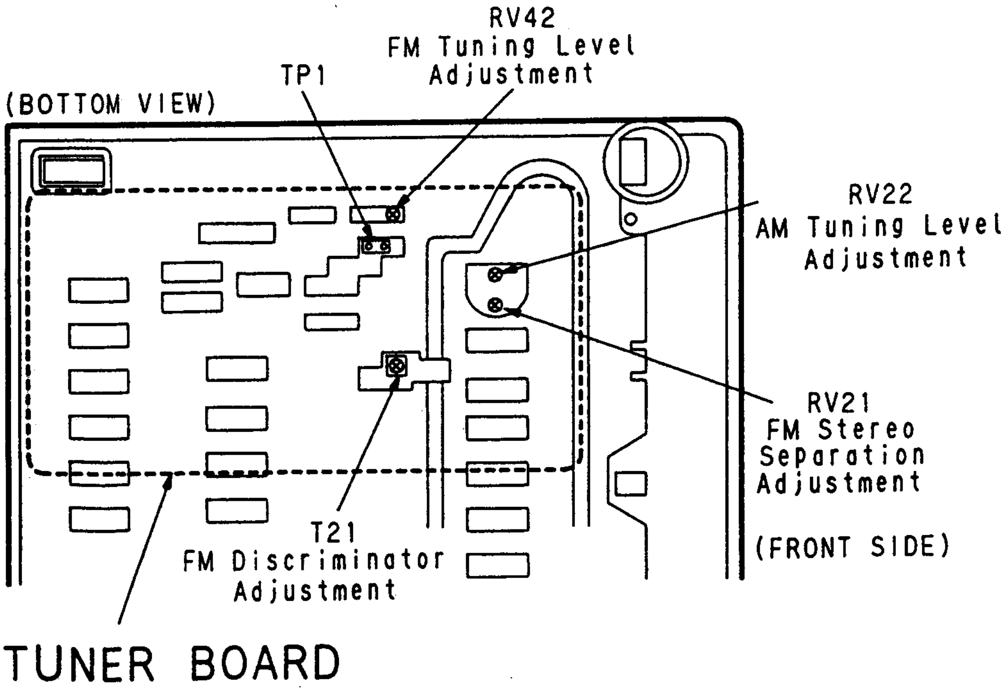
Setting :


Loop antenna B
Loop antenna A
AM RF signal generator
set
Carrier frequency: 999kHz
30% amplitude
modulation by 400Hz signal

Procedure:

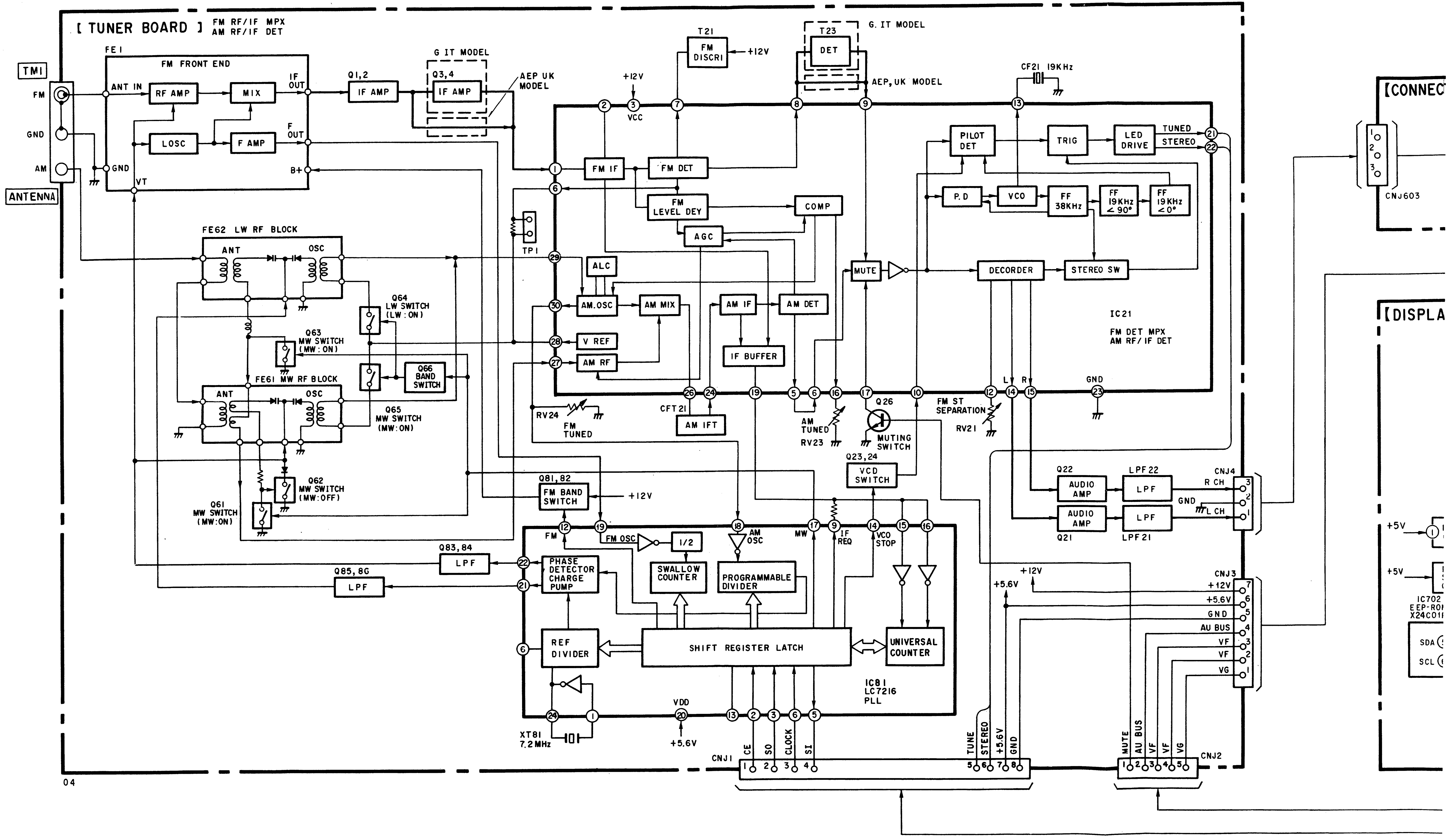
1. Set loop antenna A so that the loop antenna B input level becomes 58dBμ/m (0.8mV/m)
2. Tune the set to 999kHz.
3. Adjust the RV22 so that the TUNED indicator goes on.

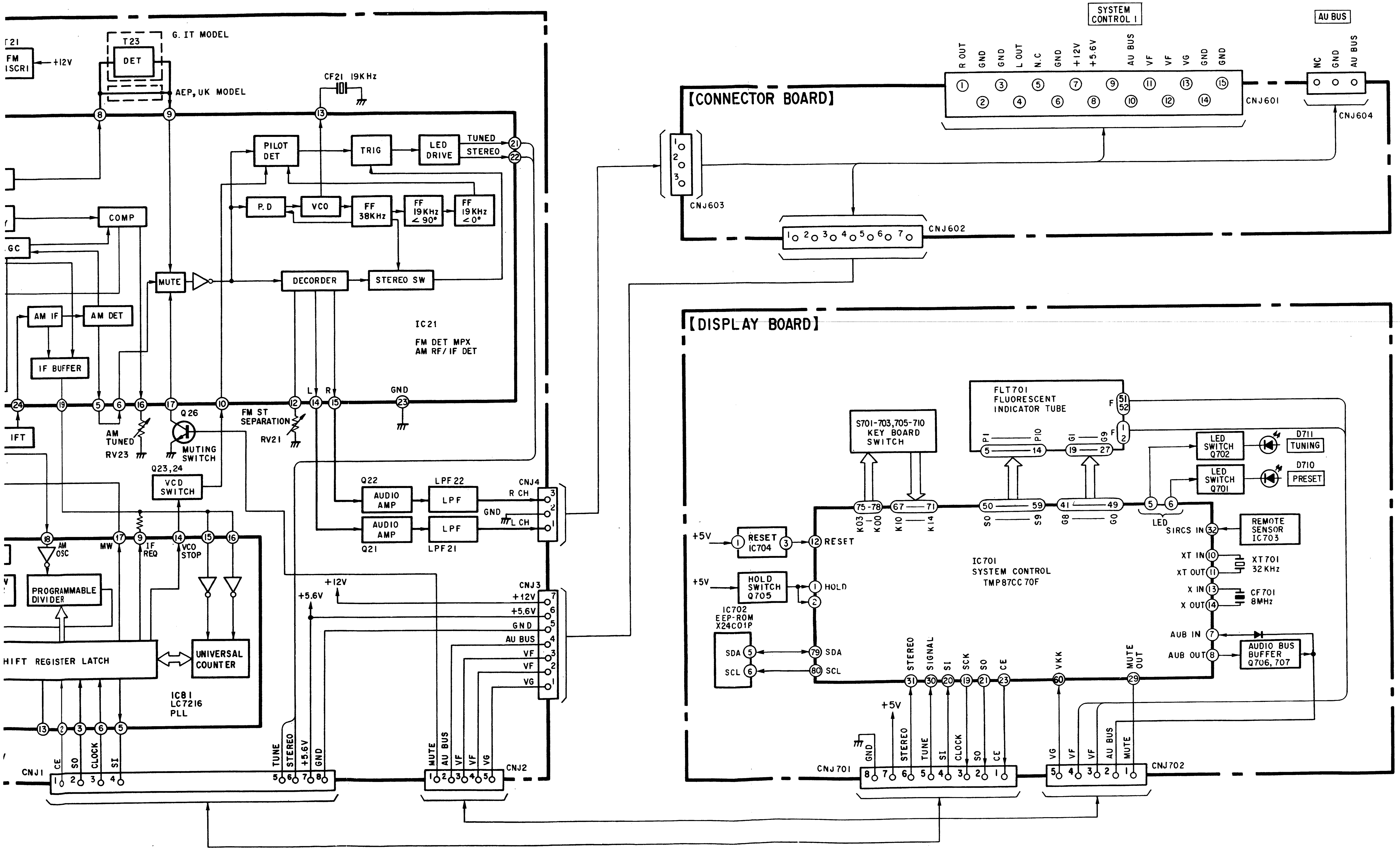
Adjustment Location :


RV42
FM Tuning Level
Adjustment
TP1
(BOTTOM VIEW)
RV22
AM Tuning Level
Adjustment
RV21
FM Stereo
Separation
Adjustment
(FRONT SIDE)
T21
FM Discriminator
Adjustment
TUNER BOARD

SECTION 4
DIAGRAMS

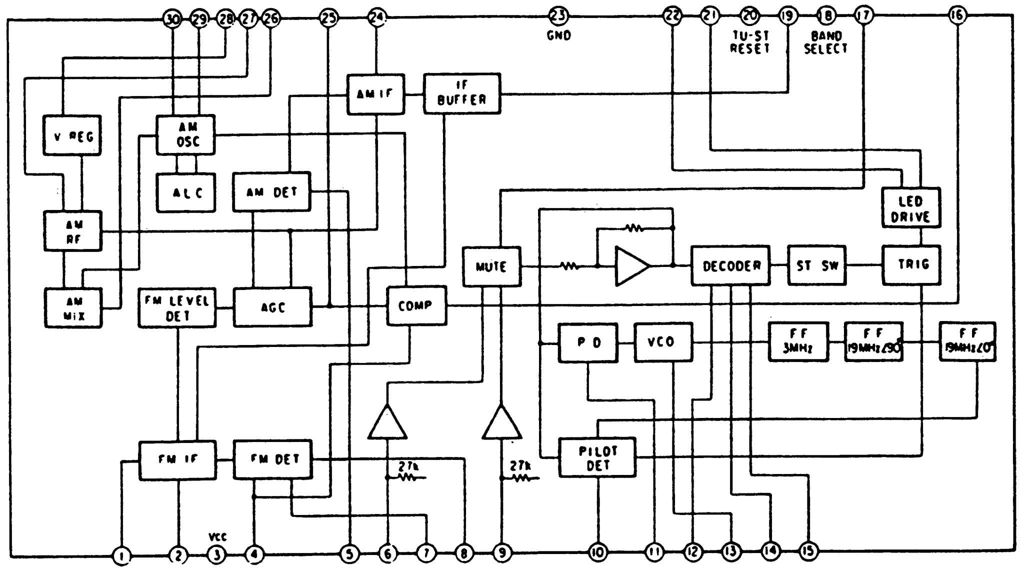
4-1. BLOCK DIAGRAM


[TUNER BOARD]
FM RF/IF MPX
AM RF/IF DET
TMI
FM
GND
AM
ANTENNA
FE1
FM FRONT END
ANT IN
RF AMP
MIX
IF OUT
LOSC
F AMP
F OUT
GND
VT
B+
Q1,2
IF AMP
G IT MODEL
Q3,4
IF AMP
AEP UK MODEL
T21
FM DISCRI
+12V
T23
DET
G. IT MODEL
AEP, UK MODEL
+12V
VCC
CF21 19KHz
PILOT DET
TRIG
LED DRIVE
TUNED
STEREO
FM IF
FM DET
FM LEVEL DEY
COMP
AGC
P.D
VCO
FF 38KHz
FF 19KHz ∠90°
FF 19KHz ∠0°
TP1
ALC
MUTE
DECORDER
STEREO SW
AM.OSC
AM MIX
AM IF
AM DET
V REF
AM RF
IF BUFFER
IC21
FM DET MPX
AM RF/IF DET
L
R
GND
FE62 LW RF BLOCK
ANT
OSC
Q64
LW SWITCH
(LW:ON)
Q63
MW SWITCH
(MW:ON)
Q66
BAND SWITCH
FE61 MW RF BLOCK
ANT
OSC
Q65
MW SWITCH
(MW:ON)
RV24
FM TUNED
CFT21
AM IFT
AM TUNED
RV23
Q26
MUTING SWITCH
FM ST SEPARATION
RV21
Q23,24
VCO SWITCH
Q62
MW SWITCH
(MW:OFF)
Q61
MW SWITCH
(MW:ON)
Q81,82
FM BAND SWITCH
+12V
FM
FM OSC
1/2
AM OSC
MW
IF REQ
VCO STOP
Q83,84
LPF
Q85,86
LPF
PHASE DETECTOR CHARGE PUMP
SWALLOW COUNTER
PROGRAMMABLE DIVIDER
REF DIVIDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
IC81
LC7216
PLL
XT81
7.2MHz
VDD
+5.6V
CNJ1
CE
SO
CLOCK
SI
TUNE
STEREO
+5.6V
GND
CNJ2
MUTE
AU BUS
VF
VF
VG
Q22
AUDIO AMP
LPF22
LPF
CNJ4
R CH
GND
L CH
AUDIO AMP
Q21
LPF21
+12V
+5.6V
CNJ3
+12V
+5.6V
GND
AU BUS
VF
VF
VG
[CONNEC
CNJ603
[DISPLA
+5V
+5V
IC702
EEP-RO
X24C01
SDA
SCL
04

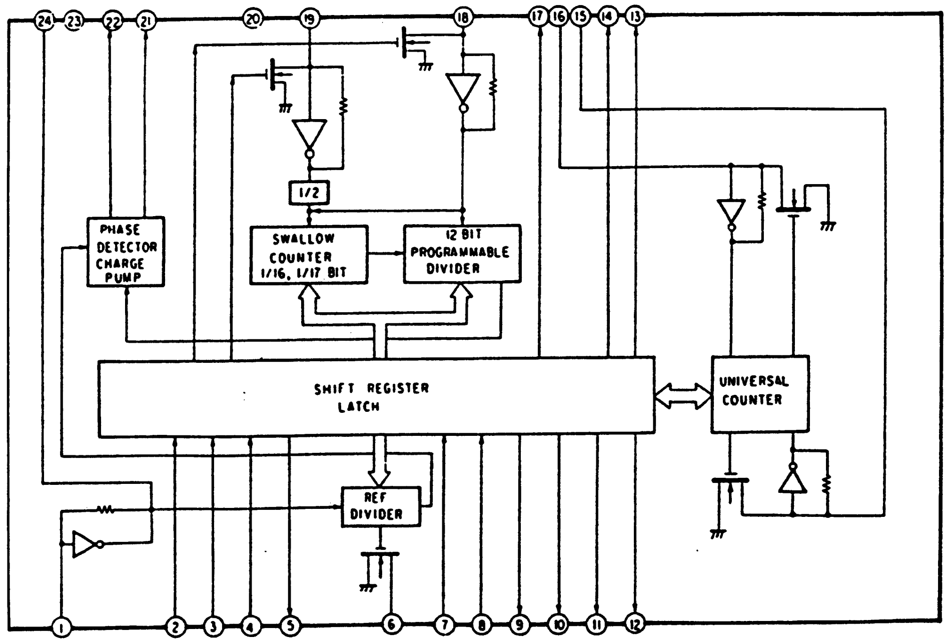

G. IT MODEL
T21
FM DISCRI
+12V
T23
DET
AEP, UK MODEL
CF21 19KHz
PILOT DET
TRIG
LED DRIVE
TUNED
STEREO
P.D
VCO
FF 38KHz
FF 19KHz ∠90°
FF 19KHz ∠0°
COMP
AGC
MUTE
DECORDER
STEREO SW
AM IF
AM DET
IF BUFFER
IC21
FM DET MPX
AM RF/IF DET
GND
L
R
IFT
AM TUNED
RV23
Q26
MUTING SWITCH
FM ST SEPARATION
RV21
Q23,24
VCD SWITCH
Q22
AUDIO AMP
LPF22
LPF
CNJ4
R CH
GND
L CH
AUDIO AMP
Q21
LPF
LPF21
AM OSC
MW
IF REQ
VCO STOP
PROGRAMMABLE DIVIDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
IC81
LC7216
PLL
+12V
+5.6V
CNJ3
+12V
+5.6V
GND
AU BUS
VF
VF
VG
CNJ1
CE
SO
CLOCK
SI
TUNE
STEREO
+5.6V
GND
MUTE
AU BUS
VF
VF
VG
CNJ2
SYSTEM CONTROL I
AU BUS
R OUT
GND
GND
L OUT
N.C
GND
+12V
+5.6V
AU BUS
VF
VF
VG
GND
GND
NC
GND
AU BUS
[CONNECTOR BOARD]
CNJ601
CNJ604
CNJ603
CNJ602
[DISPLAY BOARD]
FLT701
FLUORESCENT INDICATOR TUBE
F
P1
P10
G1
G9
S701-703, 705-710
KEY BOARD SWITCH
K03
K00
K10
K14
S0
S9
G8
G0
LED
LED SWITCH Q702
D711
TUNING
LED SWITCH Q701
D710
PRESET
+5V
RESET IC704
RESET
+5V
HOLD SWITCH Q705
HOLD
IC701
SYSTEM CONTROL
TMP87CC70F
SIRCS IN
REMOTE SENSOR IC703
XT IN
XT OUT
XT701 32KHz
X IN
X OUT
CF701 8MHz
AUB IN
AUB OUT
AUDIO BUS BUFFER Q706, 707
IC702
EEP-ROM
X24C01P
SDA
SCL
STEREO
SIGNAL
SI
SCK
SO
CE
VKK
MUTE OUT
+5V
GND
STEREO
TUNE
SI
CLOCK
SO
CE
VG
VF
VF
AU BUS
MUTE
CNJ701
CNJ702

• IC Block Diagrams

IC21 LA1851N


GND
TU-ST RESET
BAND SELECT
V REG
AM OSC
AM IF
IF BUFFER
ALC
AM DET
AM RF
LED DRIVE
MUTE
DECODER
ST SW
TRIG
AM MIX
FM LEVEL DET
AGC
COMP
P D
VCO
FF 3MHz
FF 19MHz/90
FF 19MHz/20
PILOT DET
FM IF
FM DET
27k
27k
VCC

IC81 LC7218


1/2
PHASE DETECTOR CHARGE PUMP
SWALLOW COUNTER 1/16, 1/17 BIT
12 BIT PROGRAMMABLE DIVIDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
REF DIVIDER

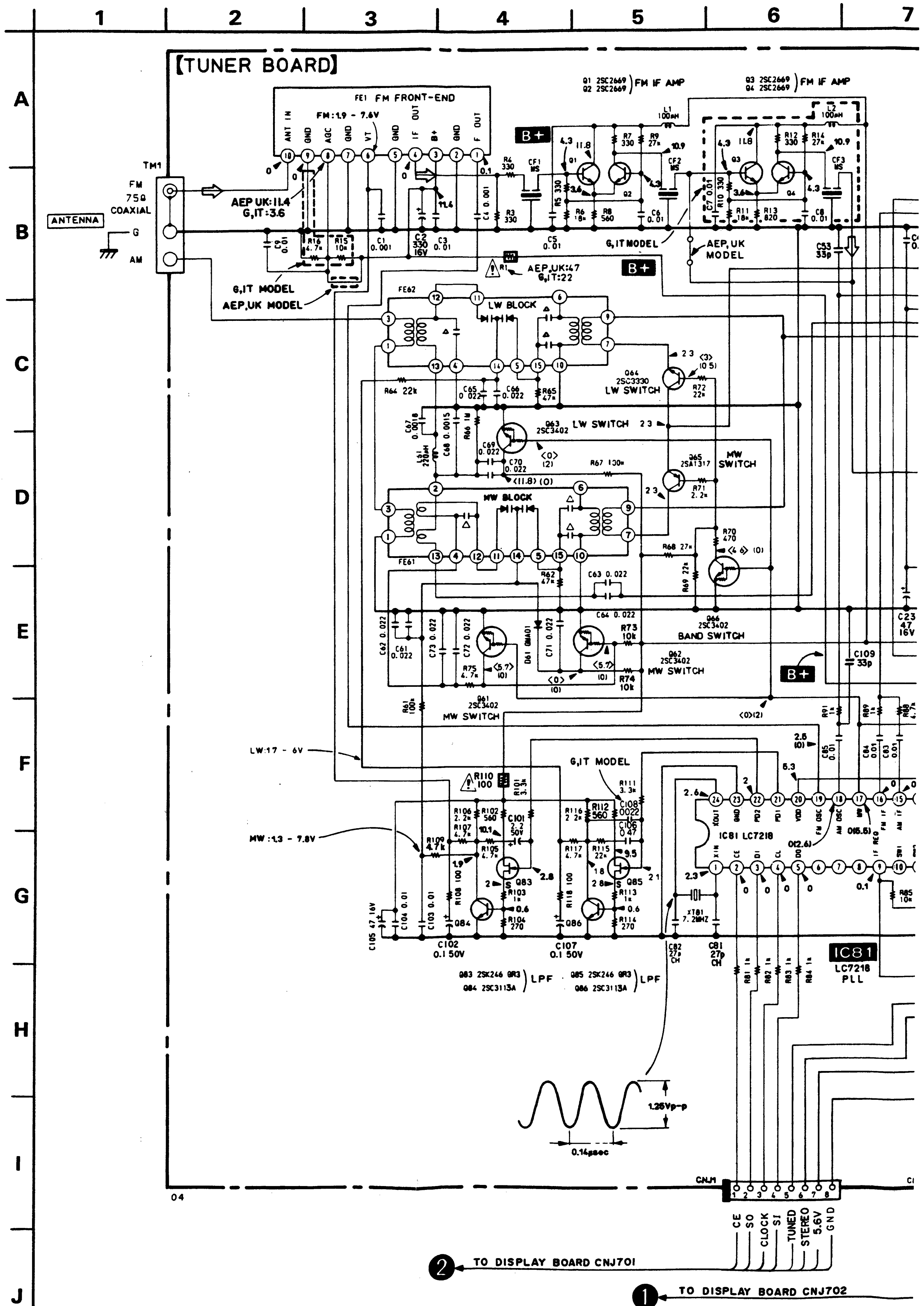
Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu$F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ⊏▭⊐ : nonflammable resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  (   ) : MW
  <   > : LW
- Voltages are taken with a VOM (Input Impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- G : Germany model
- IT : Italian model

4-2. SCHEMATIC DIAGRAM —TUNER SECTION—


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
[TUNER BOARD]
FE1 FM FRONT-END
FM:1.9 - 7.6V
Q1 2SC2669
Q2 2SC2669
FM IF AMP
Q3 2SC2669
Q4 2SC2669
FM IF AMP
TM1
FM 75Ω COAXIAL
ANTENNA
AM
AEP,UK:11.4
G,IT:3.6
G,IT MODEL
AEP,UK MODEL
AEP,UK:47
G,IT:22
AEP,UK MODEL
B+
FE62
LW BLOCK
Q64 2SC3330 LW SWITCH
Q63 2SC3402 LW SWITCH
Q65 2SA1317 MW SWITCH
MW BLOCK
FE61
Q66 2SC3402 BAND SWITCH
Q62 2SC3402 MW SWITCH
Q61 2SC3402 MW SWITCH
LW:17 - 6V
MW:1.3 - 7.8V
G,IT MODEL
IC81 LC7218
IC81 LC7218 PLL
Q83 2SK246 GR3
Q84 2SC3113A
LPF
Q85 2SK246 GR3
Q86 2SC3113A
LPF
1.25Vp-p
0.14μsec
CNJ1
CE
SO
CLOCK
SI
TUNED
STEREO
5.6V
GND
TO DISPLAY BOARD CNJ701
TO DISPLAY BOARD CNJ702

4-2. SCHEMATIC DIAGRAM —TUNER SECTION—

-wise noted. pF: μμF
cept for electrolytics

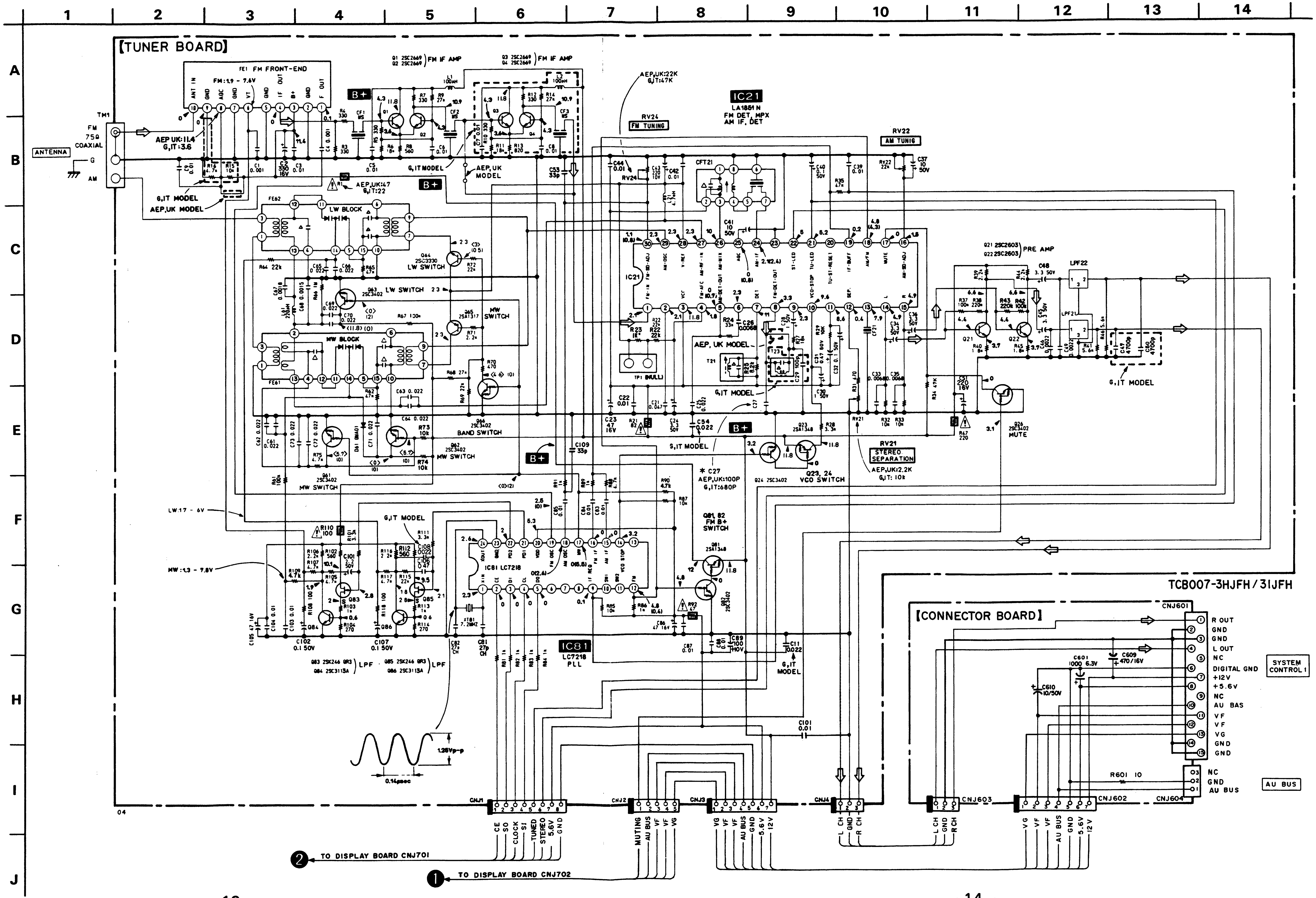
less unless otherwise

mark ⚠ or dotted
r safety.
specified.

h respect to ground
.

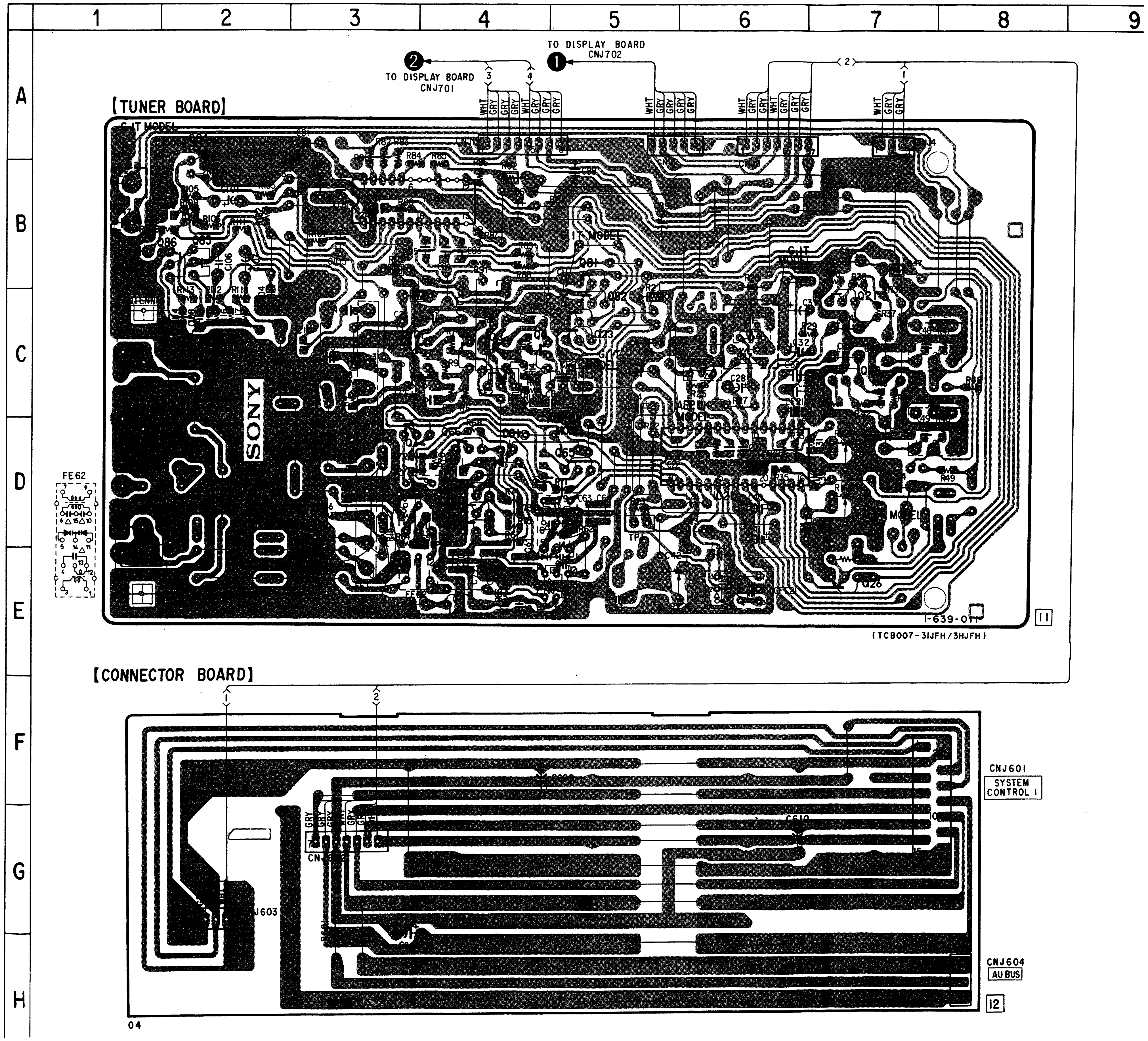
t Impedance 10MΩ).
ue to normal produc-

ope.
ue to normal produc-


1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I J
[TUNER BOARD]
FE1 FM FRONT-END
FM:1.9 - 7.6V
ANT IN
GND
AGC
VT
IF OUT
B+
F OUT
TM1
FM 75Ω COAXIAL
ANTENNA
G
AM
AEP,UK:11.4
G,IT:3.6
G,IT MODEL
AEP,UK MODEL
Q1 2SC2669
Q2 2SC2669
FM IF AMP
Q3 2SC2669
Q4 2SC2669
FM IF AMP
L1 100μH
CF1
CF2
CF3
B+
AEP,UK MODEL
AEP,UK:47
G,IT:22
AEP,UK:22K
G,IT:47K
RV24
FM TUNING
IC21
LA1851N
FM DET, MPX
AM IF, DET
RV22
AM TUNIG
CFT21
FE62
LW BLOCK
Q64 2SC3330 LW SWITCH
Q63 2SC3402 LW SWITCH
Q65 2SA1317 MW SWITCH
MW BLOCK
FE61
Q66 2SC3402 BAND SWITCH
Q62 2SC3402 MW SWITCH
Q61 2SC3402 MW SWITCH
Q21 2SC2603
Q22 2SC2603
PRE AMP
LPF22
LPF21
G,IT MODEL
AEP, UK MODEL
T21
T23
TP1 (NULL)
Q23 2SA1348
Q24 2SC3402
Q23, 24 VCO SWITCH
Q26 2SC3402 MUTE
RV21
STEREO SEPARATION
AEP,UK:2.2K
G,IT:10k
* C27
AEP,UK:100P
G,IT:680P
LW:1.7 - 6V
MW:1.3 - 7.8V
G,IT MODEL
IC81 LC7218
Q81, 82 FM B+ SWITCH
Q81 2SA1348
Q82 2SC3402
X81 7.2MHZ
Q83 2SK246 GR3
Q84 2SC3113A
LPF
Q85 2SK246 GR3
Q86 2SC3113A
LPF
1.25Vp-p
0.14μsec
IC81
LC7218
PLL
G,IT MODEL
TCB007-3HJFH/31JFH
[CONNECTOR BOARD]
CNJ601
R OUT
GND
GND
L OUT
NC
DIGITAL GND
+12V
+5.6V
NC
AU BAS
VF
VF
VG
GND
GND
SYSTEM CONTROL1
C601 1000 6.3V
C609 470/16V
C610 10/50V
R601 10
NC
GND
AU BUS
AU BUS
CNJ1
CNJ2
CNJ3
CNJ4
CNJ603
CNJ602
CNJ604
CE
SO
CLOCK
SI
TUNED
STEREO
5.6V
GND
MUTING
AU BUS
VF
VF
VG
VG
VF
VF
AU BUS
GND
5.6V
12V
L CH
GND
R CH
L CH
GND
R CH
VG
VF
VF
AU BUS
GND
5.6V
12V
② TO DISPLAY BOARD CNJ701
❶ TO DISPLAY BOARD CNJ702

4-3. PRINTED WIRING BOARDS —TUNER SECTION—

• Refer to page 22 for Semiconductor Lead Layouts.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
TO DISPLAY BOARD CNJ702
TO DISPLAY BOARD CNJ701
[TUNER BOARD]
G,IT MODEL
SONY
FE62
1-639-011
(TCB007-31JFH/3HJFH)
11
[CONNECTOR BOARD]
CNJ601
SYSTEM CONTROL 1
CNJ603
CNJ604
AU BUS
12
04

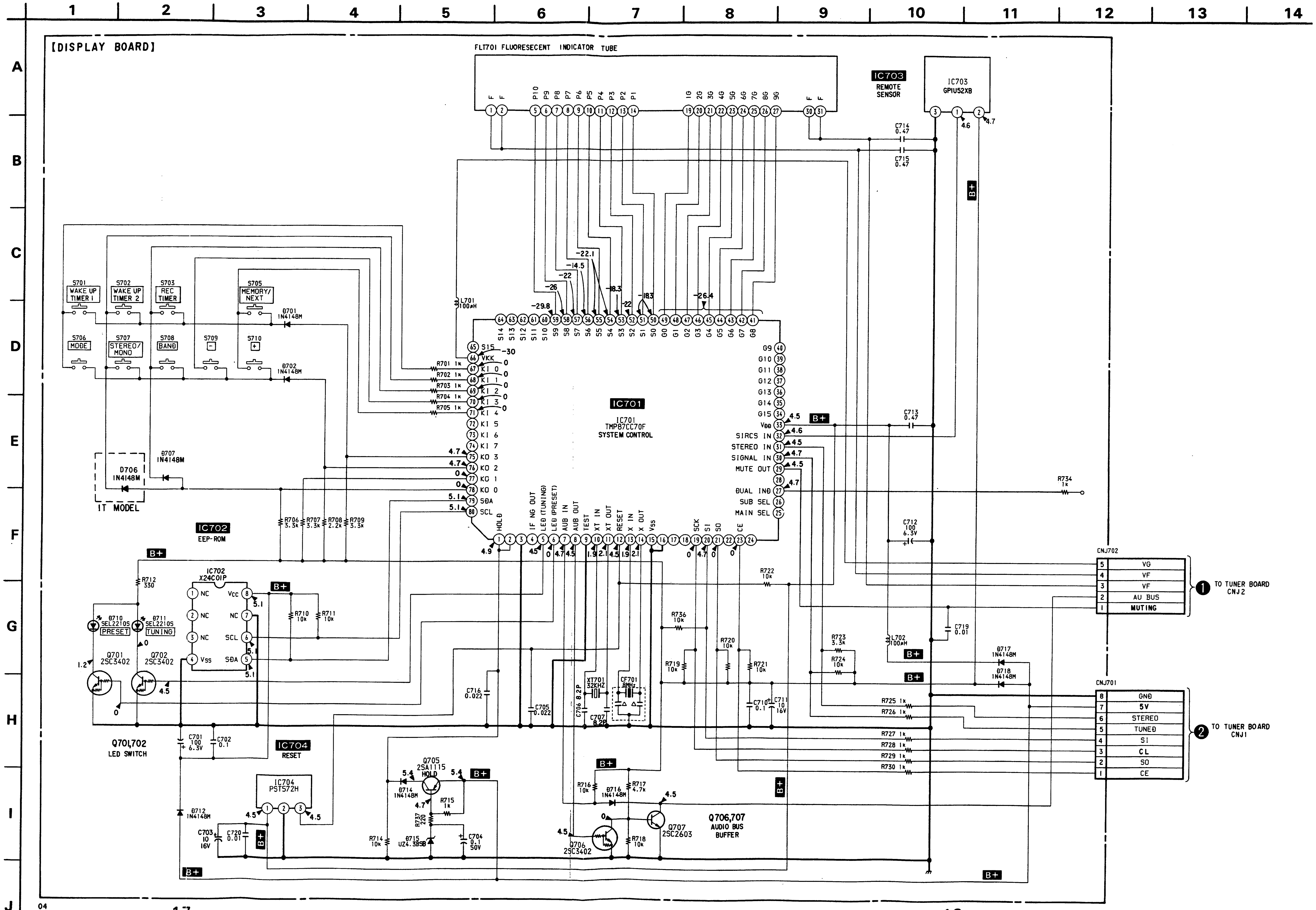
• Semiconductor Location

Ref. No.	Location
D61	D-4
IC21	D-6
IC81	B-4
Q1	C-4
Q2	C-4
Q3	C-4
Q4	C-4
Q21	C-7
Q22	C-7
Q23	C-5
Q24	C-5
Q26	E-7
Q61	D-4
Q62	D-4
Q63	D-4
Q64	D-3
Q65	D-5
Q66	D-4
Q81	B-5
Q82	C-5
Q83	B-3
Q84	A-2
Q85	B-2
Q86	B-2

Note:

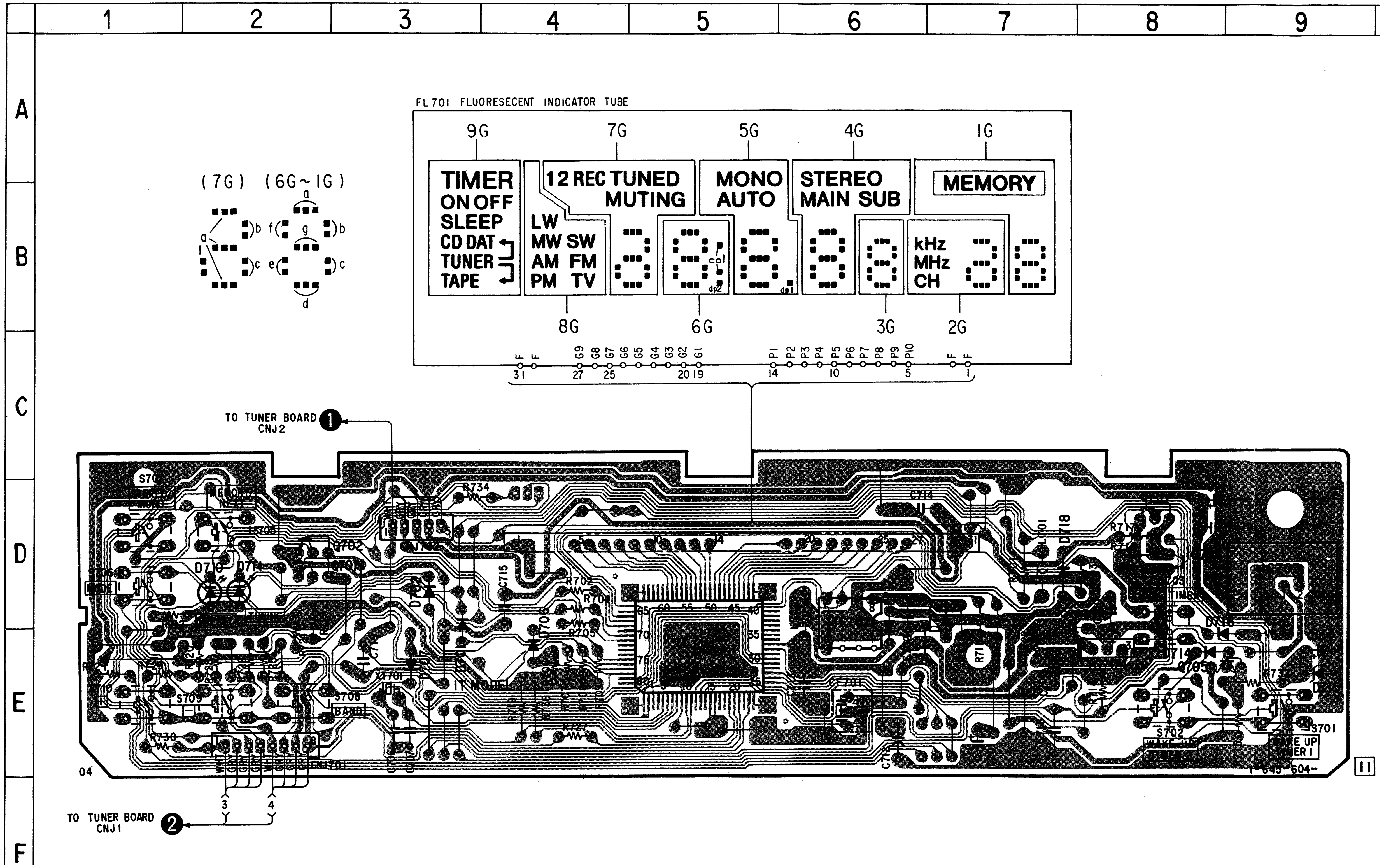
- ○—— : parts extracted from the component side.
- G : Germany model
- IT : Italian model

4-4. SCHEMATIC DIAGRAM —DISPLAY SECTION—


[DISPLAY BOARD]
FL701 FLUORESECENT INDICATOR TUBE
IC703 REMOTE SENSOR
IC703 GP1U52XB
IC701
IC701 TMP87CC70F SYSTEM CONTROL
IC702 EEP-ROM
IC702 X24C01P
IC704 RESET
IC704 PST572H
S701 WAKE UP TIMER 1
S702 WAKE UP TIMER 2
S703 REC TIMER
S705 MEMORY/NEXT
S706 MODE
S707 STEREO/MONO
S708 BAND
S709 -
S710 +
D701 1N4148M
D702 1N4148M
D706 1N4148M
D707 1N4148M
IT MODEL
L701 100μH
R701 1k
R702 1k
R703 1k
R704 1k
R705 1k
R706 3.3k
R707 3.3k
R708 2.2k
R709 3.3k
R710 10k
R711 10k
R712 330
D710 SEL2210S PRESET
D711 SEL2210S TUNING
Q701 2SC3402
Q702 2SC3402
Q701,702 LED SWITCH
C701 100 6.3V
C702 0.1
C703 10 16V
C720 0.01
D712 1N4148M
C716 0.022
C705 0.022
C706 8.2P
XT701 32KHZ
C707 8.2P
CF701 8MHz
Q705 2SA1115 HOLD
D714 1N4148M
R715 1k
R737 220
D715 UZ4.3BSB
R714 10k
C704 0.1 50V
R716 10k
D716 1N4148M
R717 4.7k
Q706 2SC3402
Q707 2SC2603
R718 10k
Q706,707 AUDIO BUS BUFFER
R736 10k
R719 10k
R720 10k
R721 10k
C710 0.1
C711 10 16V
R722 10k
R723 3.3k
R724 10k
L702 100μH
C719 0.01
D717 1N4148M
D718 1N4148M
R725 1k
R726 1k
R727 1k
R728 1k
R729 1k
R730 1k
R734 1k
C712 100 6.3V
C713 0.47
C714 0.47
C715 0.47
CNJ702
VG
VF
VF
AU BUS
MUTING
① TO TUNER BOARD CNJ2
CNJ701
GND
5V
STEREO
TUNED
SI
CL
SO
CE
② TO TUNER BOARD CNJ1
B+
S15 VKK KI 0 KI 1 KI 2 KI 3 KI 4 KI 5 KI 6 KI 7 KO 3 KO 2 KO 1 KO 0 SDA SCL
G9 G10 G11 G12 G13 G14 G15 VDD SIRCS IN STEREO IN SIGNAL IN MUTE OUT DUAL IND SUB SEL MAIN SEL
HOLD IF NG OUT LED (TUNING) LED (PRESET) AUB IN AUB OUT TEST XT IN XT OUT RESET X IN X OUT Vss SCK SI SO CE
S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 S0 G0 G1 G2 G3 G4 G5 G6 G7 G8
F F P10 P9 P8 P7 P6 P5 P4 P3 P2 P1 1G 2G 3G 4G 5G 6G 7G 8G 9G F F
NC NC NC Vss Vcc NC SCL SDA
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I J

4-5. PRINTED WIRING BOARD —DISPLAY SECTION—

• Refer to page 22 for Semiconductor Lead Layouts.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
FL701 FLUORESECENT INDICATOR TUBE
9G
7G
5G
4G
1G
TIMER
ON OFF
SLEEP
CD DAT
TUNER
TAPE
12 REC TUNED
MUTING
MONO
AUTO
STEREO
MAIN SUB
MEMORY
LW
MW SW
AM FM
PM TV
col
dp2
dp1
kHz
MHz
CH
8G
6G
3G
2G
(7G)
(6G~1G)
a
b
c
d
e
f
g
F F G9 G8 G7 G6 G5 G4 G3 G2 G1
31 27 25 20 19
P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 F F
14 10 5 1
TO TUNER BOARD CNJ2
❶
TO TUNER BOARD CNJ1
❷
3
4
S701
S702
S708
S709
D710
D711
D718
Q702
R734
R702
R704
R705
R711
R727
R730
C714
C715
CNJ701
IT MODEL
BAND
MEMORY NEXT
WAKE UP TIMER I
04
1-643-604-
11

• Semiconductor Location

Ref. No.	Location
D701	D-3
D702	D-3
D706	E-4
D707	E-3
D710	D-2
D711	D-2
D712	D-7
D714	E-8
D715	E-9
D716	E-8
D717	D-6
D718	D-7
IC701	E-5
IC702	D-6
IC703	D-9
IC704	E-8
Q701	D-2
Q702	D-2
Q705	E-8
Q706	D-8
Q707	D-8

Note on Printed Wiring Board:

- ○—— : parts extracted from the component side.
- IT: Italian model

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu$F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^1/_4$W or less unless otherwise specified.
- △ : internal component.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- IT: Italian model

4-6. PIN DESCRIPTION

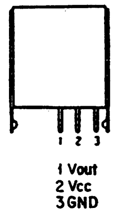
• IC701 System Controller (TMP87CC70F)

The terminals work to control tuner section (IC21, 81), FL tube display and reading and writing of IC702 (preset data), etc. according to key input and signal from the remote controller.

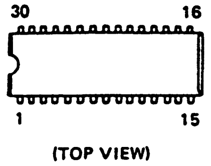
PIN No.	PIN NAME	I/O	ACTIVE	PIN FUNCTION
1	HOLD	I	↓	HOLD detecting interrupt terminal
2	HOLD RESET	I	↑	HOLD resetting interrupt terminal
3		I		Not in use
4	IF NGOUT	O	H	IF count NG output
5	LED1	O	H	TUNING LED ON
6	LED2	O	H	PRESET LED ON
7	AUB IN	I	L	AUDIO BUS input
8	AUB OUT	O	L	AUDIO BUS output
9	TEST	I	H	Test terminal
10	XT IN	I		Low frequency oscillator connection terminal (32KHz)
11	XT OUT	O		Low frequency oscillator connection terminal (32KHz)
12	RESET	I	L	Reset signal input
13	X IN	I		High frequency oscillator connection terminal (8MHz)
14	X OUT	O		High frequency oscillator connection terminal (8MHz)
15	VSS			GND
16		I		Not in use
17, 18		O		Not in use
19	SCK	O		PLL serial clock output
20	SI	I		PLL serial data input
21	SO	O		PLL serial data output
22				Not in use
23	CE	O	H	PLL chip enable
24				Not in use
25	MAIN SEL	O	L	Main sound selection terminal (Not in use)
26	SUB SEL	O	L	Sub sound selection terminal (Not in use)
27	DUAL IND	I	L	Sound dual signal detection terminal (Not in use)
28				Not in use
29	MUTE OUT	O	L	MUTING output
30	SIGNAL IN	I	L	TUNED input
31	STEREO IN	I	L	STEREO input
32	SIRCS IN	I	L	SIRCS input
33	VDD			+5V
34 - 40		O		Not in use
41 - 49	G0 - G8	O	H	FL tube digit output
50 - 59	S0 - S9	O	H	FL tube segment output
60 - 65		O	H	Not in use
66	VKK			FL tube driving power supply
67 - 71	KI0 - KI4	I	H	Key input
72		I		Not in use
73, 74				Not in use
75 - 78	KO0 - KO3	O	H	Key output
79	SDA	I/O		Data input/output for EEPROM
80	SCL	O		Clock output for EEPROM

4-7. SEMICONDUCTOR LEAD LAYOUTS

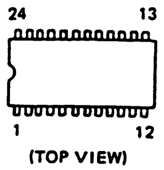
GP1U52XB



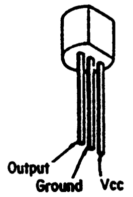
LA1851N



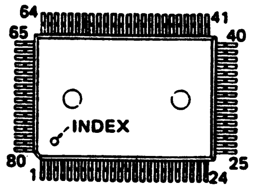
LC7218



PST572H

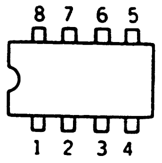


TMP87CC70F



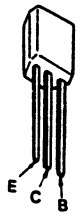
MARKING SIDE VIEW

X24C01P

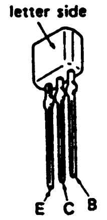


(TOP VIEW)

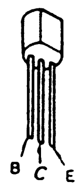
DTA114ES
DTC114ES
2S2603-EF
2SC2669-0Y
2SC3113-AB



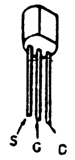
2SA1175-HFE
2SC2785-HFE



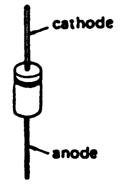
2SC3330-T



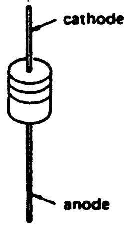
2SK246-GR3



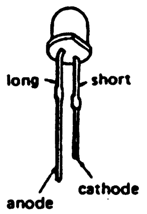
UZ-4.3BSB
1N4148M



1SS120



SEL2210S-D



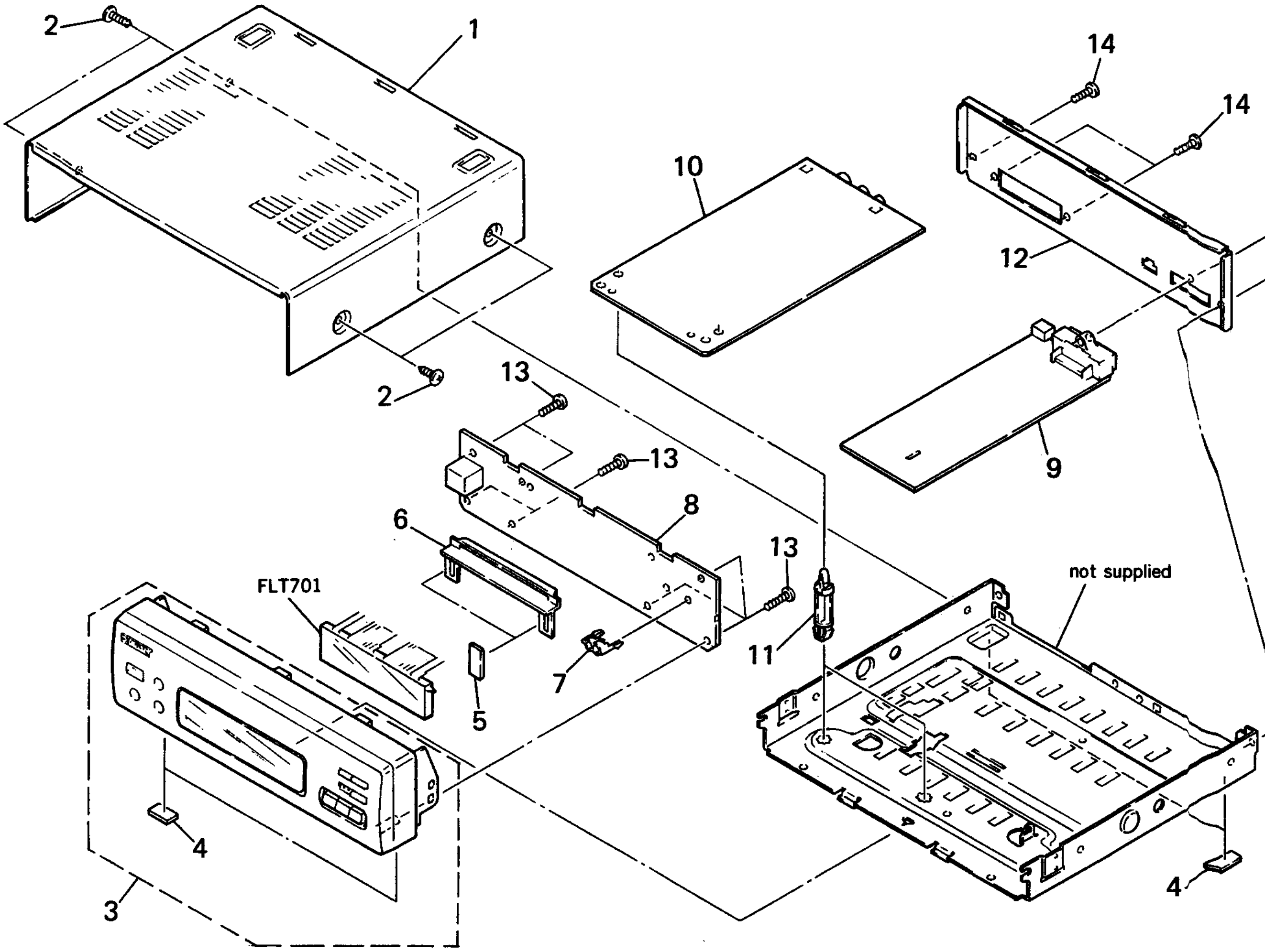
SECTION 5
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- G : Germany model
- IT : Italian model



Ref. No.	Part No.	Description	Remark
* 1	4-944-423-61	CASE (K206522)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
3	X-4942-950-1	PANEL ASSY, FRONT (H2750)	
3	X-4942-951-1	PANEL ASSY, FRONT (H3750)	
4	4-930-336-21	FOOT (FELT)	
* 5	4-932-810-11	CUSHION (FL)	
* 6	4-944-441-01	HOLDER (FL TUBE)	
* 7	4-954-788-01	HOLDER (LED)	
* 8	A-4356-144-A	DISPLAY BOARD, COMPLETE (AEP, UK, G)	
* 8	A-4356-146-A	DISPLAY BOARD, COMPLETE (IT)	
* 9	1-645-605-11	CONNECTOR BOARD	

Ref. No.	Part No.	Description	Remark
* 10	A-4303-367-A	TUNER BOARD, COMPLETE (TCB007-3HFH) (AEP, UK)	
* 10	A-4303-368-A	TUNER BOARD, COMPLETE (TCB007-3HFH) (G, IT)	
* 11	4-914-008-01	HOLDER, PCB	
* 12	4-953-719-11	PANEL, BACK (H2750:AEP, UK)	
* 12	4-953-719-21	PANEL, BACK (H2750:IT)	
* 12	4-953-719-31	PANEL, BACK (H2750:G)	
* 12	4-953-719-51	PANEL, BACK (H3750:AEP, UK)	
* 12	4-953-719-61	PANEL, BACK (H3750:IT)	
13	4-951-620-01	SCREW (2.6X8), +BVTP	
14	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
FLT701	1-519-709-11	INDICATOR TUBE, FLUORESCENT	

TUNER

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

- G : Germany model
- IT : Italian model

Ref.No.	Part No.	Description				Remark
	A-4303-367-A	TUNER BOARD, COMPLETE (TCB007-3HJFH)				(AEP, UK)
	A-4303-368-A	TUNER BOARD, COMPLETE (TCB007-3IJFH)				(G, IT)
		************************************				
*	4-924-988-11	PLATE (ST), GROUND				
		< CAPACITOR >				
C1	1-162-294-11	CERAMIC CHIP	0.001uF	20%	25V	
C2	1-124-119-00	ELECT	330uF	20%	16V	
C3	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C4	1-162-294-31	CERAMIC CHIP	0.001uF	20%	25V	
C5	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C6	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C7	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	(G, IT)
C8	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	(G, IT)
C9	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C11	1-101-005-00	CERAMIC	0.022uF		50V	(G, IT)
C21	1-101-006-00	CERAMIC	0.047uF		50V	
C22	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C23	1-124-477-11	ELECT	47uF	20%	25V	
C24	1-123-382-00	ELECT	3.3uF	20%	100V	
C25	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C26	1-163-019-00	CERAMIC CHIP	0.0068uF	20%	12V	
C27	1-162-516-11	CERAMIC CHIP	100pF	10%	50V	(AEP, UK)
C27	1-163-007-11	CERAMIC CHIP	680pF	20%	50V	(G, IT)
C28	1-124-903-11	ELECT	1.0uF	20%	50V	
C29	1-162-516-11	CERAMIC CHIP	100pF	10%	50V	(G, IT)
C30	1-124-903-11	ELECT	1.0uF	20%	50V	
C31	1-124-902-00	ELECT	0.47uF	20%	50V	
C32	1-124-463-00	ELECT	0.1uF	20%	50V	
C33	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C34	1-123-382-00	ELECT	3.3uF	20%	100V	
C35	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C36	1-123-382-00	ELECT	3.3uF	20%	100V	
C37	1-124-907-11	ELECT	10uF	20%	50V	
C39	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C40	1-124-463-00	ELECT	0.1uF	20%	50V	
C41	1-124-907-11	ELECT	10uF	20%	50V	
C42	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C43	1-126-176-11	ELECT	220uF	20%	10V	
C44	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C45	1-123-382-00	ELECT	3.3uF	20%	100V	
C46	1-161-375-00	CERAMIC CHIP	0.0022uF	20%	25V	
C47	1-163-170-00	CERAMIC CHIP	0.0047uF	20%	25V	(G, IT)
C48	1-123-382-00	ELECT	3.3uF	20%	100V	
C49	1-161-375-00	CERAMIC CHIP	0.0022uF	20%	25V	
C50	1-163-170-00	CERAMIC CHIP	0.0047uF	20%	25V	(G, IT)
C51	1-126-934-11	ELECT	220uF	20%	25V	
C53	1-163-105-00	CERAMIC CHIP	33pF	5%	50V	
C54	1-101-005-00	CERAMIC	0.022uF		50V	(G, IT)
C61	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C62	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C63	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C64	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C65	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C66	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C67	1-102-120-00	CERAMIC	0.0018uF	10%	50V	
C68	1-163-111-11	CERAMIC CHIP	0.0015uF	20%	25V	
C69	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C70	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C71	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C72	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C73	1-163-063-00	CERAMIC MELF	0.022uF		25V	
C81	1-102-961-00	CERAMIC	27pF	5%	50V	
C82	1-102-961-00	CERAMIC	27pF	5%	50V	
C83	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C84	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C85	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C86	1-124-477-11	ELECT	47uF	20%	25V	
C87	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C88	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C89	1-124-443-00	ELECT	100uF	20%	10V	
C101	1-124-925-11	ELECT	2.2uF	20%	100V	
C102	1-124-463-00	ELECT	0.1uF	20%	50V	
C103	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C104	1-163-059-00	CERAMIC MELF	0.01uF	20%	16V	
C105	1-124-477-11	ELECT	47uF	20%	25V	
C106	1-136-173-00	FILM	0.47uF	5%	50V	

Ref. No.	Part No.	Description	Remark
C107	1-124-463-00	ELECT 0.1uF 20% 50V	
C108	1-163-063-00	CERAMIC MELF 0.022uF 25V	(G, IT)
C109	1-162-211-31	CERAMIC 33pF 5% 50V	
C121	1-161-379-00	CERAMIC 0.01uF 30% 16V	(G, IT)
		< FILTER >	
CF1	1-567-389-11	FILTER, CERAMIC	
CF2	1-567-389-11	FILTER, CERAMIC	
CF3	1-567-389-11	FILTER, CERAMIC	(G, IT)
		< OSCILLATOR >	
CF21	1-577-075-11	OSCILLATOR, CERAMIC (19KHz)	
		< IF TRANSFORMER >	
CFT21	1-404-853-11	TRANSFORMER, IF (CERAMIC FILTER)	
		< CONECTOR >	
* CNJ1	1-564-342-11	SOCKET, CONNECTOR 8P	
* CNJ2	1-564-339-00	PIN, CONNECTOR 5P	
* CNJ3	1-564-341-11	PIN, CONNECTOR 7P	
* CNJ4	1-564-337-00	PIN, CONNECTOR 3P	
		< DIODE >	
D61	8-719-912-20	DIODE 1SS120	
		< FM FRONT END >	
FE1	1-463-857-11	FRONT END, FM	(G, IT)
FE1	1-463-862-21	FRONT END, FM	(AEP, UK)
		< ENCAPSULATED COMPONENT >	
FE61	1-236-462-11	ENCAPSULATED COMPONENT (MW RF)	
FE62	1-236-463-11	ENCAPSULATED COMPONENT (LW RF)	
		< IC >	
IC21	8-759-821-45	IC LA1851N	
IC81	8-759-820-91	IC LC7218	
		< INDUCTOR >	
L1	1-410-645-31	MICRO INDUCTOR 100uH	
L2	1-410-645-31	MICRO INDUCTOR 100uH	(G, IT)
L21	1-407-500-00	MICRO INDUCTOR 4.7mH	
L61	1-410-525-11	MICRO INDUCTOR 220uH	
		< LOW PASS FILTER >	
LPF21	1-235-164-00	FILTER, LOW PASS	
LPF22	1-235-164-00	FILTER, LOW PASS	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q1	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q2	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q3	8-729-230-99	TRANSISTOR 2SC2669-OY	(G, IT)
Q4	8-729-230-99	TRANSISTOR 2SC2669-OY	(G, IT)
Q21	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q22	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q23	8-729-900-61	TRANSISTOR DTA114ES	
Q24	8-729-900-80	TRANSISTOR DTC114ES	
Q26	8-729-900-80	TRANSISTOR DTC114ES	
Q61	8-729-900-80	TRANSISTOR DTC114ES	
Q62	8-729-900-80	TRANSISTOR DTC114ES	
Q63	8-729-900-80	TRANSISTOR DTC114ES	
Q64	8-729-820-24	TRANSISTOR 2SC3330-T	
Q65	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q66	8-729-900-80	TRANSISTOR DTC114ES	
Q81	8-729-900-61	TRANSISTOR DTA114ES	
Q82	8-729-900-80	TRANSISTOR DTC114ES	
Q83	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q84	8-729-230-93	TRANSISTOR 2SC3113-AB	
Q85	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q86	8-729-230-93	TRANSISTOR 2SC3113-AB	
		< RESISTOR >	
⚠R1	1-249-397-11	CARBON (SMALL) 22 5% 1/4W F	(G, IT)
⚠R1	1-249-401-11	CARBON (SMALL) 47 5% 1/4W F	(AEP, UK)
R3	1-249-329-11	CARBON MELF 330 5% 1/8W	
R4	1-249-329-11	CARBON MELF 330 5% 1/8W	
R5	1-249-329-11	CARBON MELF 330 5% 1/8W	
R6	1-249-350-11	CARBON MELF 18K 5% 1/8W	
R7	1-249-329-11	CARBON MELF 330 5% 1/8W	
R8	1-249-332-11	CARBON MELF 560 5% 1/8W	
R9	1-249-352-11	CARBON MELF 27K 5% 1/8W	
R10	1-249-329-11	CARBON MELF 330 5% 1/8W	(G, IT)
R11	1-249-350-11	CARBON MELF 18K 5% 1/8W	(G, IT)
R12	1-249-329-11	CARBON MELF 330 5% 1/8W	(G, IT)
R13	1-249-334-11	CARBON MELF 820 5% 1/8W	(G, IT)
R14	1-249-352-11	CARBON MELF 27K 5% 1/8W	(G, IT)
R15	1-249-374-11	CARBON MELF 10K 5% 1/8W	(G, IT)
R16	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	(G, IT)
⚠R21	1-249-404-00	CARBON (SMALL) 82 5% 1/4W F	
R22	1-249-433-11	CARBON (SMALL) 22K 5% 1/4W	
R23	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R24	1-249-353-11	CARBON MELF 33K 5% 1/8W	
R25	1-249-346-11	CARBON MELF 8.2K 5% 1/8W	
R27	1-249-432-11	CARBON (SMALL) 18K 5% 1/4W	
R28	1-249-423-11	CARBON (SMALL) 3.3K 5% 1/4W	
R29	1-249-347-11	CARBON MELF 10K 5% 1/8W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

TUNER DISPLAY CONNECTOR

Ref. No.	Part No.	Description	Remark
R31	1-249-331-11	CARBON MELF 470 5% 1/8W	
R32	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R33	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R34	1-249-437-11	CARBON (SMALL) 47K 5% 1/4W	
R35	1-249-355-11	CARBON MELF 47K 5% 1/8W	
R37	1-249-359-11	CARBON MELF 100K 5% 1/8W	
R38	1-249-363-11	CARBON MELF 220K 5% 1/8W	
R39	1-249-339-11	CARBON MELF 2.2K 5% 1/8W	
R40	1-249-338-11	CARBON MELF 1.8K 5% 1/8W	
R41	1-249-344-11	CARBON MELF 5.6K 5% 1/8W	
R42	1-249-359-11	CARBON MELF 100K 5% 1/8W	
R43	1-249-363-11	CARBON MELF 220K 5% 1/8W	
R44	1-249-339-11	CARBON MELF 2.2K 5% 1/8W	
R45	1-249-338-11	CARBON MELF 1.8K 5% 1/8W	
R46	1-249-344-11	CARBON MELF 5.6K 5% 1/8W	
⚠R47	1-249-409-11	CARBON (SMALL) 220 5% 1/4W F	
R48	1-249-359-11	CARBON MELF 100K 5% 1/8W	
R49	1-249-359-11	CARBON MELF 100K 5% 1/8W	
R61	1-249-359-11	CARBON MELF 100K 5% 1/8W	
R62	1-249-355-11	CARBON MELF 47K 5% 1/8W	
R64	1-249-351-11	CARBON MELF 22K 5% 1/8W	
R65	1-249-355-11	CARBON MELF 47K 5% 1/8W	
R66	1-215-493-00	CARBON MELF 1M 5% 1/5W	
R67	1-249-359-11	CARBON MELF 100K 5% 1/8W	
R68	1-249-352-11	CARBON MELF 27K 5% 1/8W	
R69	1-249-351-11	CARBON MELF 22K 5% 1/8W	
R70	1-249-331-11	CARBON MELF 470 5% 1/8W	
R71	1-249-339-11	CARBON MELF 2.2K 5% 1/8W	
R72	1-249-351-11	CARBON MELF 22K 5% 1/8W	
R73	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R74	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R75	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	
R81	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R82	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R83	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R84	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R85	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R86	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R87	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R88	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	
R89	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R90	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	
R91	1-249-335-11	CARBON MELF 1K 5% 1/8W	
⚠R92	1-249-401-11	CARBON (SMALL) 47 5% 1/4W F	
R101	1-249-341-11	CARBON MELF 3.3K 5% 1/8W	
R102	1-249-332-11	CARBON MELF 560 5% 1/8W	
R103	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R104	1-249-328-11	CARBON MELF 270 5% 1/8W	
R105	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	

Ref. No.	Part No.	Description	Remark
R106	1-249-339-11	CARBON MELF 2.2K 5% 1/8W	
R107	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	
R108	1-249-323-11	CARBON MELF 100 5% 1/8W	
R109	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	
⚠R110	1-249-405-11	CARBON (SMALL) 100 5% 1/4W F	
R111	1-249-341-11	CARBON MELF 3.3K 5% 1/8W	
R112	1-249-332-11	CARBON MELF 560 5% 1/8W	
R113	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R114	1-249-328-11	CARBON MELF 270 5% 1/8W	
R115	1-249-351-11	CARBON MELF 22K 5% 1/8W	
R116	1-249-339-11	CARBON MELF 2.2K 5% 1/8W	
R117	1-249-343-11	CARBON MELF 4.7K 5% 1/8W	
R118	1-249-323-11	CARBON MELF 100 5% 1/8W	

< VARIABLE RESISTOR >

RV21	1-238-598-11	RES, ADJ, CARBON 2.2K (AEP, UK)
RV21	1-238-600-11	RES, ADJ, CARBON 10K (G, IT)
RV22	1-238-601-11	RES, ADJ, CARBON 22K
RV24	1-238-601-11	RES, ADJ, CARBON 22K (AEP, UK)
RV24	1-238-602-11	RES, ADJ, CARBON 47K (G, IT)

< TRANSFORMER >

T21	1-404-807-11	TRANSFORMER, DISCRIMINATOR
T23	1-236-465-11	ENCAPSULATED COMPONENT (G, IT)

< TERMINAL >

* TM1	1-537-138-31	TERMINAL BOARD (ANTENNA)

< CONNECTOR PIN >

* TP1	1-560-060-00	PIN, CONNECTOR 2P

< CRYSTAL VIBRATOR >

XT81	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)

****

*	A-4356-144-A	DISPLAY BOARD, COMPLETE (AEP, UK, G)
*	A-4356-146-A	DISPLAY BOARD, COMPLETE (IT)

****

*	1-645-605-11	CONNECTOR BOARD

****

*	4-932-810-11	CUSHION (FL)
*	4-944-441-01	HOLDER (FL TUBE)
*	4-954-788-01	HOLDER (LED)

< CAPACITOR >

C601	1-124-471-00	ELECT	1000uF	20%	6.3V
C609	1-126-103-11	ELECT	470uF	20%	16V
C610	1-124-907-11	ELECT	10uF	20%	50V
C701	1-126-177-11	ELECT	100uF	20%	10V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

DISPLAY CONNECTOR

Ref. No.	Part No.	Description			Remark
C702	1-164-159-11	CERAMIC	0.1uF		50V
C703	1-126-157-11	ELECT	10uF	20%	16V
C704	1-124-463-00	ELECT	0.1uF	20%	50V
C705	1-161-494-00	CERAMIC	0.022uF		25V
C706	1-162-198-31	CERAMIC	8.2PF	10%	50V
C707	1-162-198-31	CERAMIC	8.2PF	10%	50V
C710	1-164-159-11	CERAMIC	0.1uF		50V
C711	1-126-157-11	ELECT	10uF	20%	16V
C712	1-126-177-11	ELECT	100uF	20%	10V
C713	1-136-173-00	FILM	0.47uF	5%	50V
C714	1-136-173-00	FILM	0.47uF	5%	50V
C715	1-136-173-00	FILM	0.47uF	5%	50V
C716	1-161-494-00	CERAMIC	0.022uF		25V
C719	1-162-306-11	CERAMIC	0.01uF	20%	16V
C720	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< VIBRATOR >			
CF701	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
		< CONNECTOR >			
* CNJ601	1-566-859-11	SOCKET, CONNECTOR 15P (SYSTEM CONTROL1)			
* CNJ602	1-564-341-11	PIN, CONNECTOR 7P			
* CNJ603	1-564-337-00	PIN, CONNECTOR 3P			
* CNJ604	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)			
* CNJ701	1-564-342-11	PIN, CONNECTOR 8P			
* CNJ702	1-564-339-00	PIN, CONNECTOR 5P			
		< DIODE >			
D701	8-719-987-63	DIODE	1N4148M		
D702	8-719-987-63	DIODE	1N4148M		
D706	8-719-987-63	DIODE	1N4148M (IT)		
D707	8-719-987-63	DIODE	1N4148M		
D710	8-719-301-39	LED	SEL2210S-D (PRESET)		
D711	8-719-301-39	LED	SEL2210S-D (TUNING)		
D712	8-719-987-63	DIODE	1N4148M		
D714	8-719-987-63	DIODE	1N4148M		
D715	8-719-010-29	DIODE	UZ-4.3BSB		
D716	8-719-987-63	DIODE	1N4148M		
D717	8-719-987-63	DIODE	1N4148M		
D718	8-719-987-63	DIODE	1N4148M		
		< FLUORESCENT INDICATOR >			
FLT701	1-519-709-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC701	8-759-059-85	IC	TMP87CC70F		
IC702	8-759-500-31	IC	X24C01P		
IC703	8-749-920-83	IC	GP1U52XB		

Ref. No.	Part No.	Description			Remark
IC704	8-759-515-58	IC	PST572H		
		< COIL >			
L701	1-410-521-11	INDUCTOR	100uH		
L702	1-410-521-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q701	8-729-900-80	TRANSISTOR	DTC114ES		
Q702	8-729-900-80	TRANSISTOR	DTC114ES		
Q705	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q706	8-729-900-80	TRANSISTOR	DTC114ES		
Q707	8-729-620-05	TRANSISTOR	2SC2603-EF		
		< RESISTOR >			
R601	1-249-393-11	CARBON	10	5%	1/4W
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-417-11	CARBON	1K	5%	1/4W
R703	1-249-417-11	CARBON	1K	5%	1/4W
R704	1-249-417-11	CARBON	1K	5%	1/4W
R705	1-249-417-11	CARBON	1K	5%	1/4W
R706	1-249-423-11	CARBON	3.3K	5%	1/4W
R707	1-249-423-11	CARBON	3.3K	5%	1/4W
R708	1-249-421-11	CARBON	2.2K	5%	1/4W
R709	1-249-423-11	CARBON	3.3K	5%	1/4W
R710	1-249-429-11	CARBON	10K	5%	1/4W
R711	1-249-429-11	CARBON	10K	5%	1/4W
R712	1-249-411-11	CARBON	330	5%	1/4W
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-417-11	CARBON	1K	5%	1/4W
R716	1-249-429-11	CARBON	10K	5%	1/4W
R717	1-249-425-11	CARBON	4.7K	5%	1/4W
R718	1-249-429-11	CARBON	10K	5%	1/4W
R719	1-249-429-11	CARBON	10K	5%	1/4W
R720	1-249-429-11	CARBON	10K	5%	1/4W
R721	1-249-429-11	CARBON	10K	5%	1/4W
R722	1-249-429-11	CARBON	10K	5%	1/4W
R723	1-249-423-11	CARBON	3.3K	5%	1/4W
R724	1-249-429-11	CARBON	10K	5%	1/4W
R725	1-249-417-11	CARBON	1K	5%	1/4W
R726	1-249-417-11	CARBON	1K	5%	1/4W
R727	1-249-417-11	CARBON	1K	5%	1/4W
R728	1-249-417-11	CARBON	1K	5%	1/4W
R729	1-249-417-11	CARBON	1K	5%	1/4W
R730	1-249-417-11	CARBON	1K	5%	1/4W
R734	1-249-417-11	CARBON	1K	5%	1/4W
R736	1-249-429-11	CARBON	10K	5%	1/4W
R737	1-249-409-11	CARBON	220	5%	1/4W

DISPLAY CONNECTOR

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S701	1-554-303-21	SWITCH, TACTILE (WAKE UP TIMER 1)	
S702	1-554-303-21	SWITCH, TACTILE (WAKE UP TIMER 2)	
S703	1-554-303-21	SWITCH, TACTILE (REC TIMER)	
S705	1-554-303-21	SWITCH, TACTILE (MEMORY/NEXT)	
S706	1-554-303-21	SWITCH, TACTILE (MODE)	
S707	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
S708	1-554-303-21	SWITCH, TACTILE (BAND)	
S709	1-554-303-21	SWITCH, TACTILE (-)	
S710	1-554-303-21	SWITCH, TACTILE (+)	
		< VIBRATOR >	
XT701	1-527-997-21	VIBRATOR, CRYSTAL (32KHz)	

****

Sony Corporation
Audio Group

English
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Published by Customer Relations and Service Group

SONY-06197

SS-H2750

SERVICE MANUAL

AEP Model
UK Model

SPECIFICATIONS

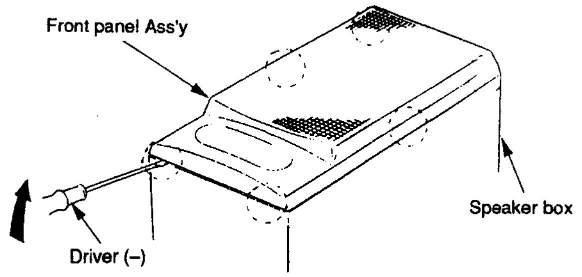
Speaker system	3-way
Speaker units	Woofer : 14 cm, cone type Mid-range : 6 cm, cone type Tweeter: 2 cm, dome type
Enclosure type	Bass reflex
Nominal impedance	6 Ω
Power handling capacity	Music 70W
Sensitivity	89 dB (1W, 1 m), 5W (96 dB, 1 m)
Frequency range	55Hz to 20.000Hz
Dimensions	Approx. 182x362x225 mm (w/h/d)
Weight	Approx. 4,1kg per speaker, net Approx. 9,0kg in shipping carton

Design and specifications subject to change without notice.

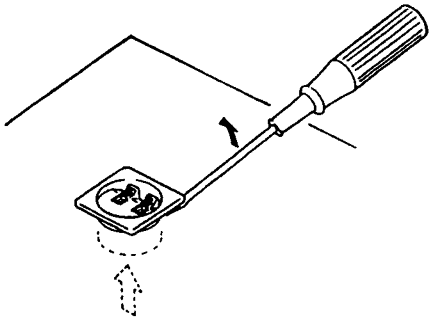
This set is the speaker system in MHC-2750.

1. DISASSEMBLY

1-1. FRONT PANEL ASSY

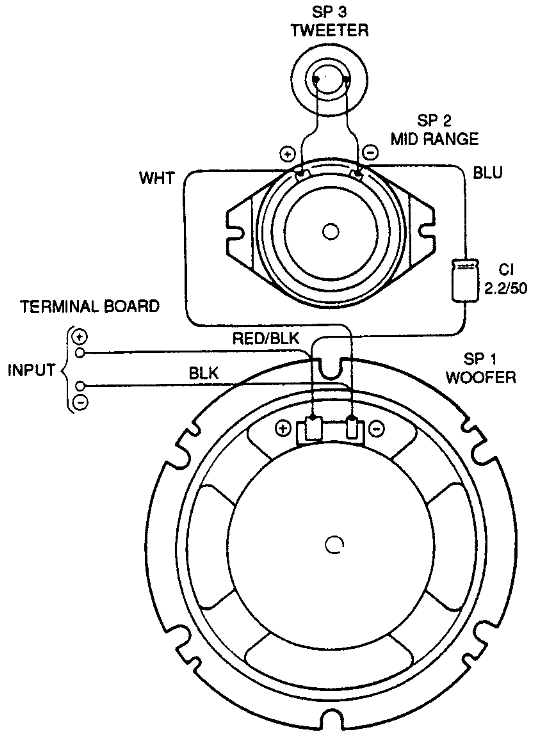

Front panel Ass'y
Speaker box
Driver (–)

1-2. TERMINAL BOARD



- Hit the terminal with the back of a screwdriver from the inside, and tap it out.
- Insert a slotted screwdriver at the rim of the terminal and remove as shown in the figure.

2. WIRING DIAGRAM


SP 3
TWEETER
SP 2
MID RANGE
⊕
⊖
WHT
BLU
CI
2.2/50
TERMINAL BOARD
RED/BLK
INPUT
⊕
⊖
BLK
SP 1
WOOFER
⊕
⊖

SPEAKER SYSTEM

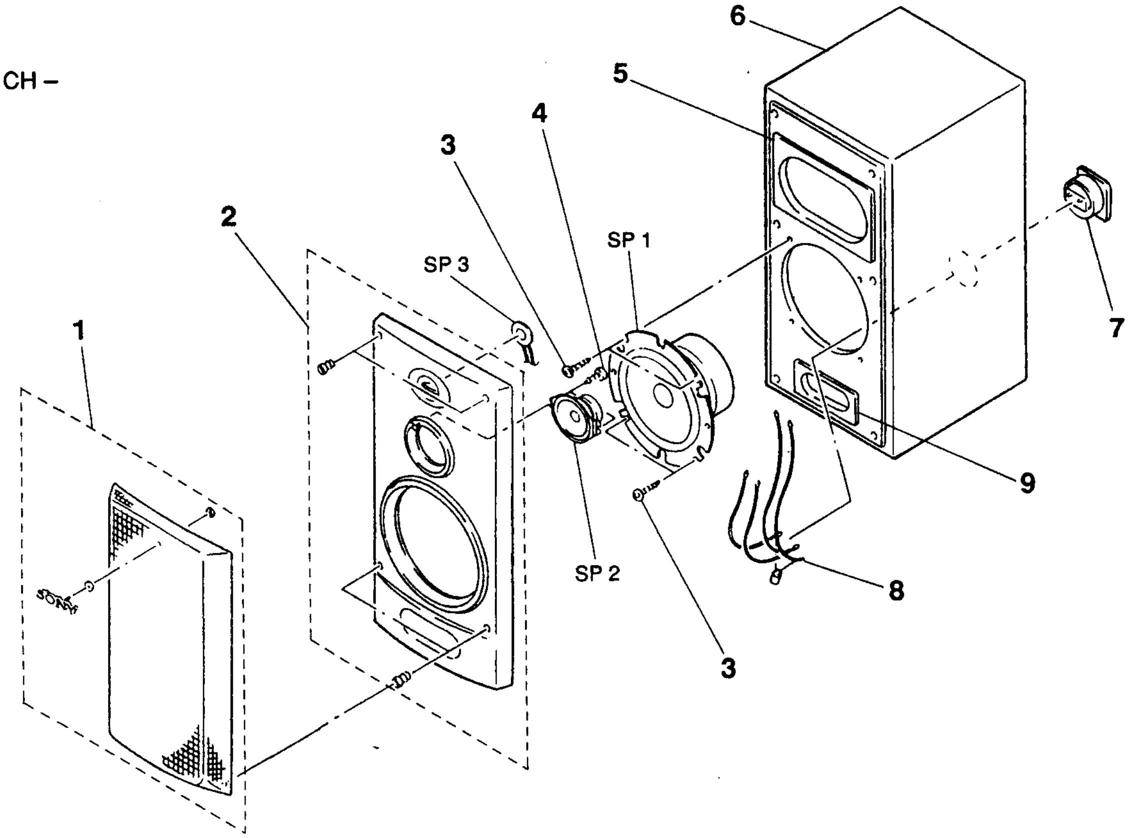
SONY®

3. EXPLODED VIEW AND PARTS LIST

NOTE:

- –XX, –X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for rotine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  G : Germany
  IT : Italian

- L - CH -



Ref. No.	Part No.	Description	Remark
1	T-8150-566-A	GRILLE FRAME ASSY (UK)	
1	T-8150-554-A	GRILLE FRAME ASSY (AEP, G, IT)	
2	T-8150-552-A	FRONT PANEL (L) ASSY	
2	T-8150-553-A	FRONT PANEL (R) ASSY	
3	T-8151-871-1	TAPPING SCREW +P 4,0X12 (UK)	
3	T-8150-573-1	TAPPING SCREW +P 4,0X15 (AEP, G, IT)	
4	T-8151-870-1	TAPPING SCREW +P 3,5X9,5 (UK)	
4	T-8151-863-1	TAPPING SCREW +P 3,5X8 (AEP, G, IT)	
5	T-8151-845-1	GASKET FOR TWEETER	
6	T-8151-836-1	SPEAKER BOX (UK)	
6	T-8151-838-1	SPEAKER BOX (AEP, G, IT)	
7	T-8151-042-1	TERMINAL BOARD	
8	T-8150-543-A	WIRE KIT ASSY (UK)	
8	T-8150-546-A	WIRE KIT ASSY (AEP, G, IT)	
9	T-8151-846-1	GASKET FOR DUCT	

Ref. No.	Part No.	Description	Remark
SP1	1-544-644-11	SPEAKER UNIT (13 cm CONE)	
SP2	1-544-650-21	SPEAKER UNIT (6 cm CONE)	
SP3	1-544-293-31	SPEAKER UNIT (2 cm PIEZO)	
		< ACCESSORIES & PACKING MATERIALS >	
	T-8151-827-2	INSTRUCTION MANUAL (UK)	
	T-8151-829-2	INSTRUCTION MANUAL (AEP, G, IT)	
	T-8110-521-1	SPEAKER CORD	
*	T-8151-912-1	CARTON (UK)	
*	T-8151-875-1	CARTON (AEP, G, IT)	
*	T-8151-803-1	CUSHION (A)	
*	T-8151-851-1	CUSHION (B)	

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V13752

CDP-H3750

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

This set is the CD player section in FH-E705C, MHC-2750/3750.

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM23-5BD3
Optical Pick-Up Block Type	BU-5BD3

SPECIFICATIONS

System	Compact disc digital audio system
Laser	Semiconductor laser (λ = 780 nm) Emission duration: continuous
Laser output	Max. 44.6 μW* * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Signal to noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.05% (at 1 kHz)
Channel separation	More than 90 dB
Output level	1.6 V (at 50 kilohms)
Load impedance	More than 10 kilohms

Design and specifications subject to change without notice.

For the United Kingdom and European countries.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MICROFILM

COMPACT DISC PLAYER

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

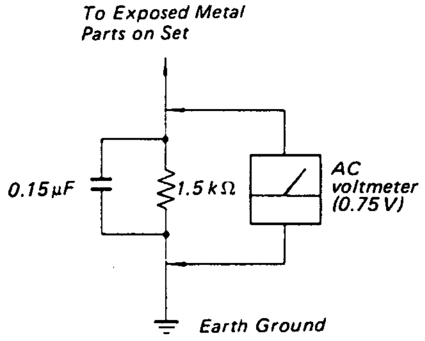


Fig. A. Using an AC voltmeter to check AC leakage.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

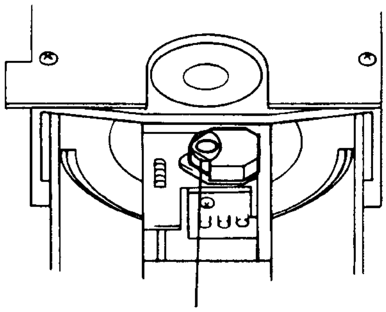
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential diference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30cm away from the objective lens.

LASER DIODE AND FOCUS SERCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.



- Confirm that laser beam is spread.
- Up and down motion of the objective lens. (3 times)

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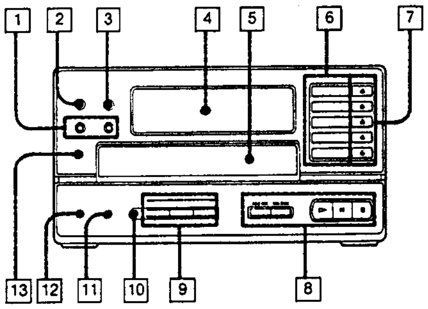
SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. PARTS IDENTIFICATION

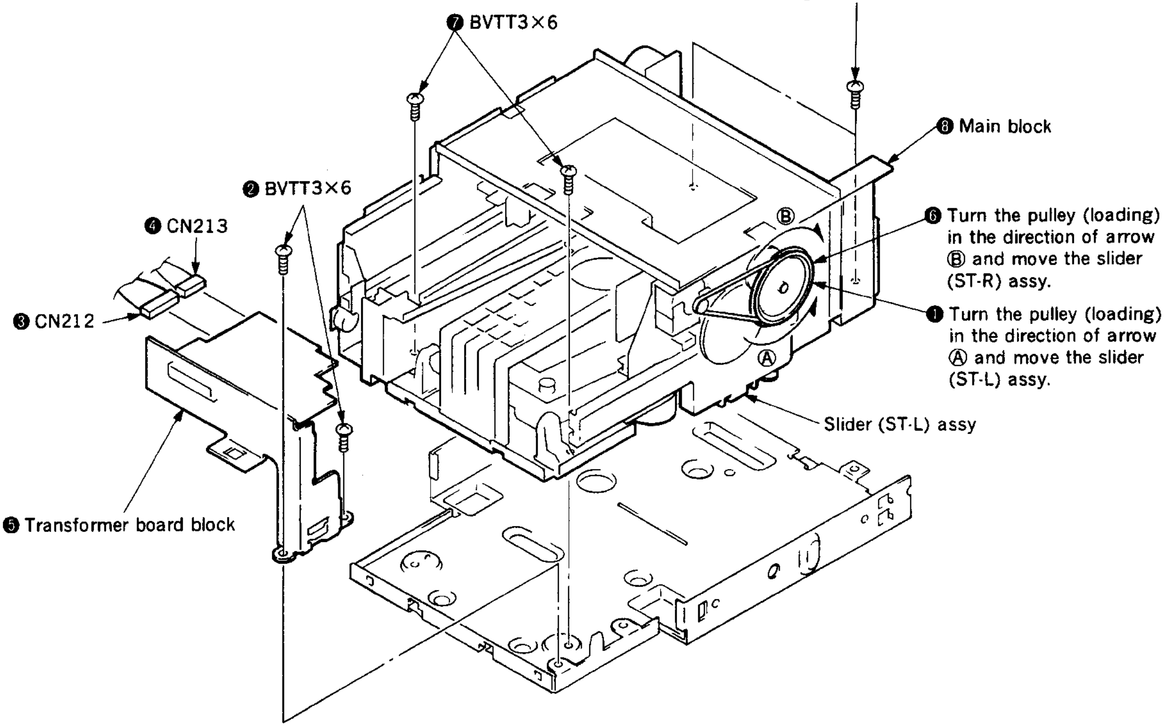


1. CHARACTER ◁/▷ buttons (74)
2. MEMO INPUT button (74)
3. CURSOR button (74)
4. Display window
5. Disc tray door
6. DISC 1 — 5 selectors and disc tray indicators ㉘ ㉞
7. OPEN/CLOSE ⏏ buttons ㉘
8. CD operation buttons
   - ■: Stop button
   - ❚❚: Pause button
   - ▷: Play button
   - ⏮◀◀ ▶▶⏭: Manual search (when kept depressed)/AMS* (when pressed) buttons
9. PLAY MODE buttons
   - PROGRAM button ㊹
   - SHUFFLE button ㊵
   - CONTINUE button ㉚
10. REPEAT button ㊷
11. TIME/MEMO button ㉜ (76)
12. SOUND FIELD FILE button (78)
13. ERASE button (76) (78)

SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

2-1. REMOVE THE MAIN BLOCK


❼ BVTT3×6
❼ BVTT3×6
❽ Main block
❷ BVTT3×6
❹ CN213
❸ CN212
❺ Transformer board block
Ⓑ
Ⓐ
Slider (ST-L) assy

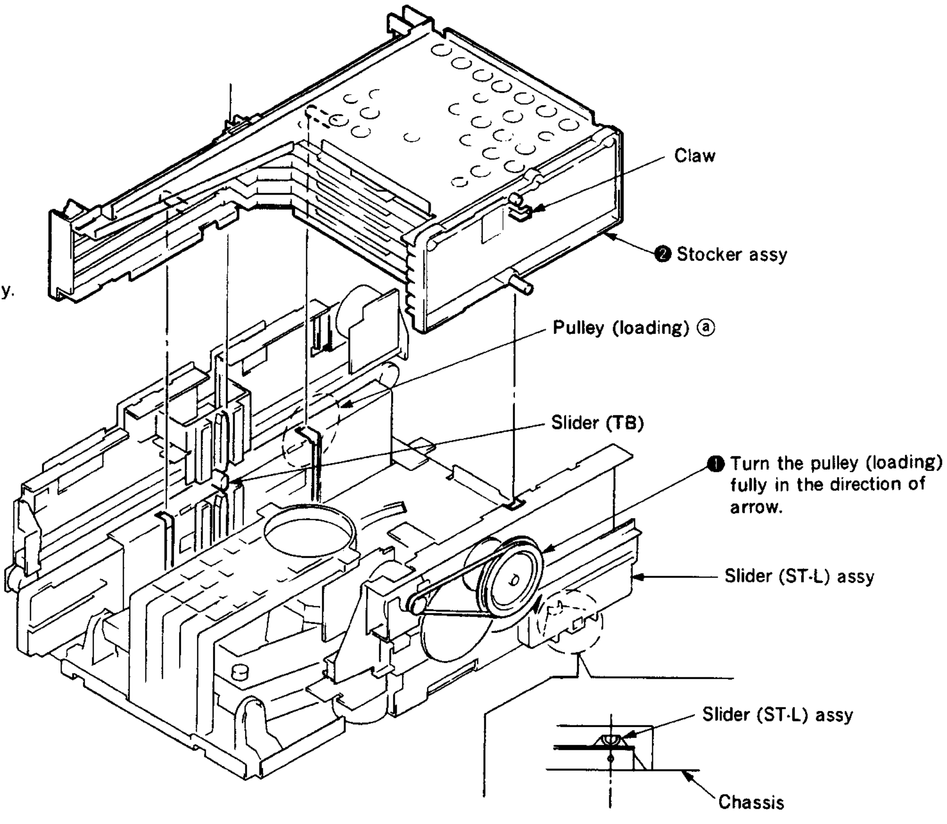
❻ Turn the pulley (loading) in the direction of arrow Ⓑ and move the slider (ST-R) assy.

❶ Turn the pulley (loading) in the direction of arrow Ⓐ and move the slider (ST-L) assy.

2-2. EXCHANGE OF STOCKER ASSY

How to Attachment
❶ Turn the pulley (loading) set the chassis hole position to slider (ST-L) assy. (See Fig. A)
❷ Turn the pulley (loading) ⓐ set the position of illustration for slider (TB).
❸ Attach the stocker assy.

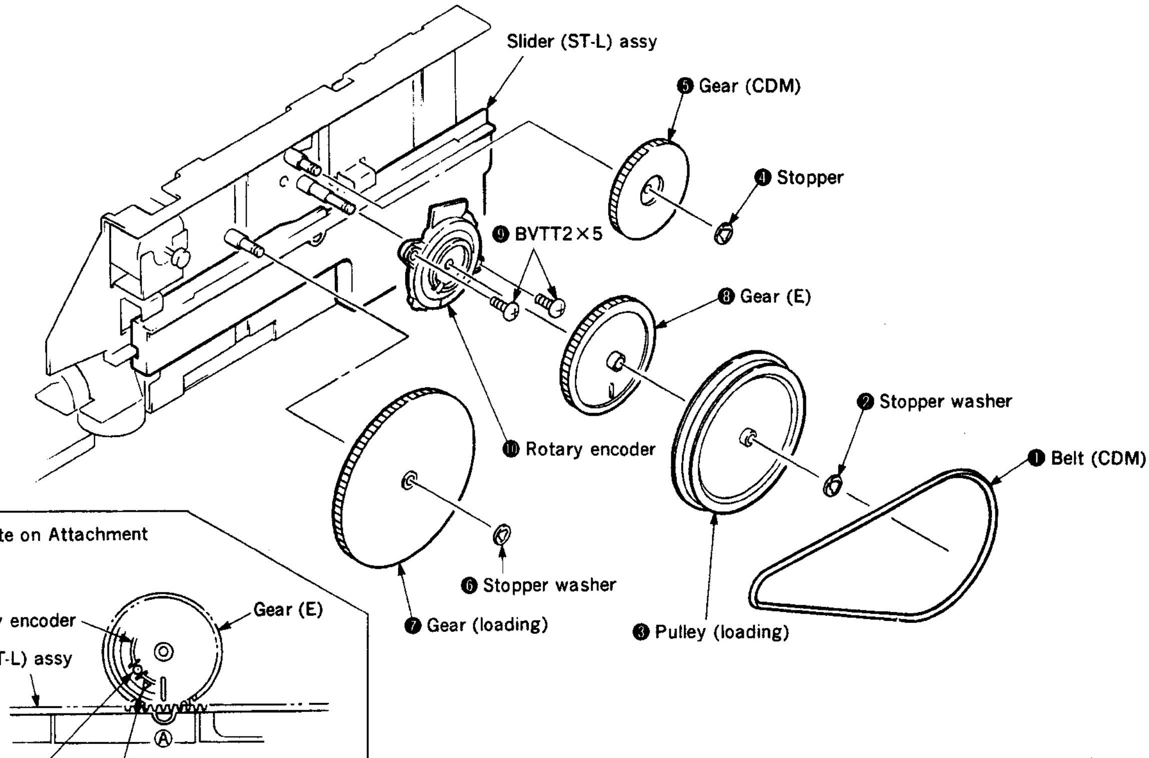
Note) Sure attach to ditch of chassis side for shaft or claw of stocker assy.


Claw
❷ Stocker assy
Pulley (loading) ⓐ
Slider (TB)
Slider (ST-L) assy
Slider (ST-L) assy
Chassis

❶ Turn the pulley (loading) fully in the direction of arrow.

Fig. A

2-3. EXCHANGE OF ROTARY ENCODER


Slider (ST-L) assy
❺ Gear (CDM)
❹ Stopper
❾ BVTT2×5
❽ Gear (E)
❷ Stopper washer
❶ Belt (CDM)
❿ Rotary encoder
❻ Stopper washer
❼ Gear (loading)
❸ Pulley (loading)
Rotary encoder
Gear (E)
Slider (ST-L) assy
Ⓐ

Note on Attachment

❶ Set the mark of in side rotary encoder.

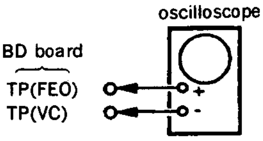
❷ Set the projection of gear (E) to ditch of rotary encoder, besides attach the set Ⓐ of slider (ST-L) assy.

SECTION 3
ELECTRICAL BLOCK CHECKING

Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

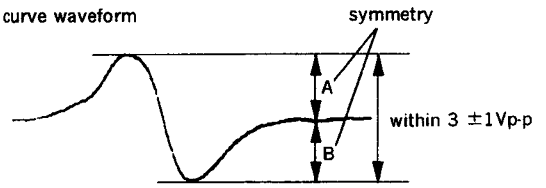
S Curve Check


oscilloscope
BD board
TP(FEO)
TP(VC)
+
-

Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within 3±1Vp-p.

S curve waveform

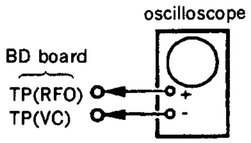

symmetry
A
B
within 3 ±1Vp-p

5. After check, remove the lead wire connected in step 2.

Note : ● Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.

● Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check


oscilloscope
BD board
TP(RFO)
TP(VC)
+
-

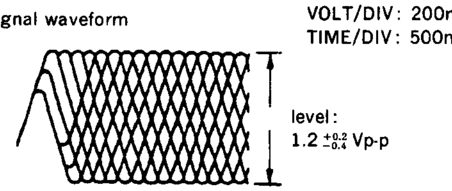
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

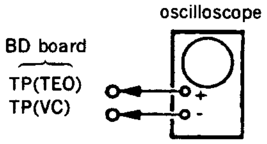
Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform


VOLT/DIV: 200mV
TIME/DIV: 500nS
level:
1.2 +0.2 −0.4 Vp-p

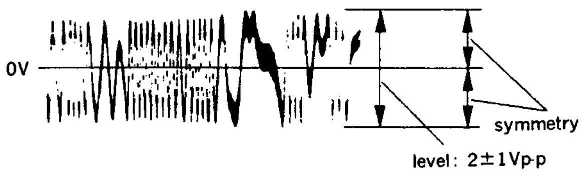
E-F Balance Check


oscilloscope
BD board
TP(TEO)
TP(VC)
+
-

Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse oscilloscope

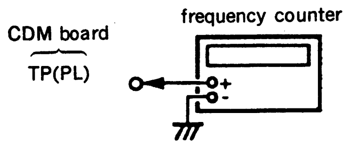

0V
symmetry
level: 2±1Vp-p

6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure:

1. Connect frequency counter to test point (PL) with lead wire.


CDM board
TP(PL)
frequency counter
+
-

2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain

This gain has a margin, so even if it is slightly off.

There is no problem.

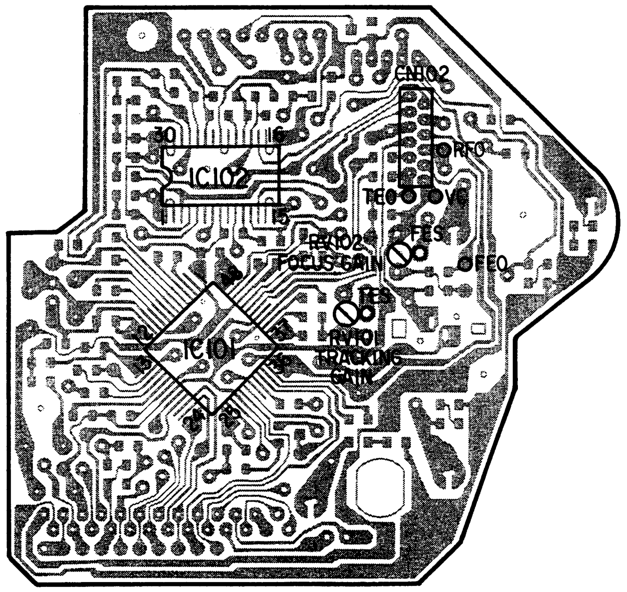
Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

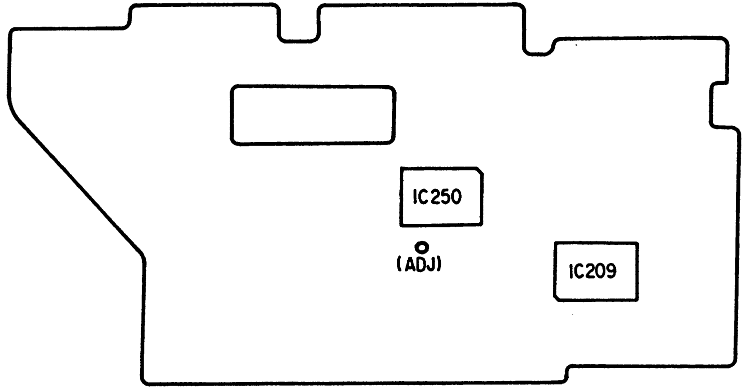
Checking Location:

[BD Board]

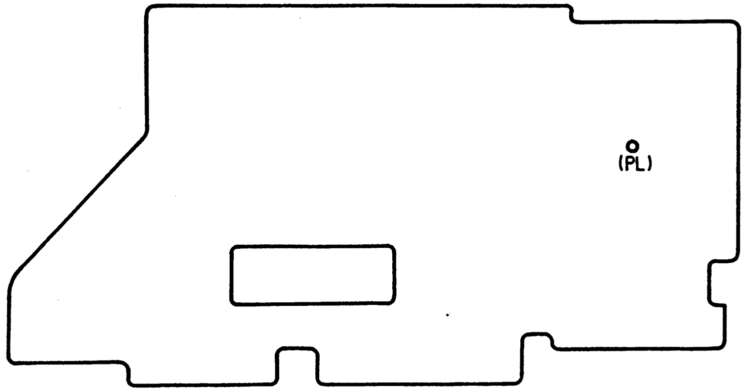
—Conductor Side—


CN102
30
16
IC102
1
15
RFO
TEO
VC
FES
RV102
FOCUS GAIN
FEO
TES
IC101
RV101
TRACKING
GAIN

[CDM BORD] -Component Side-

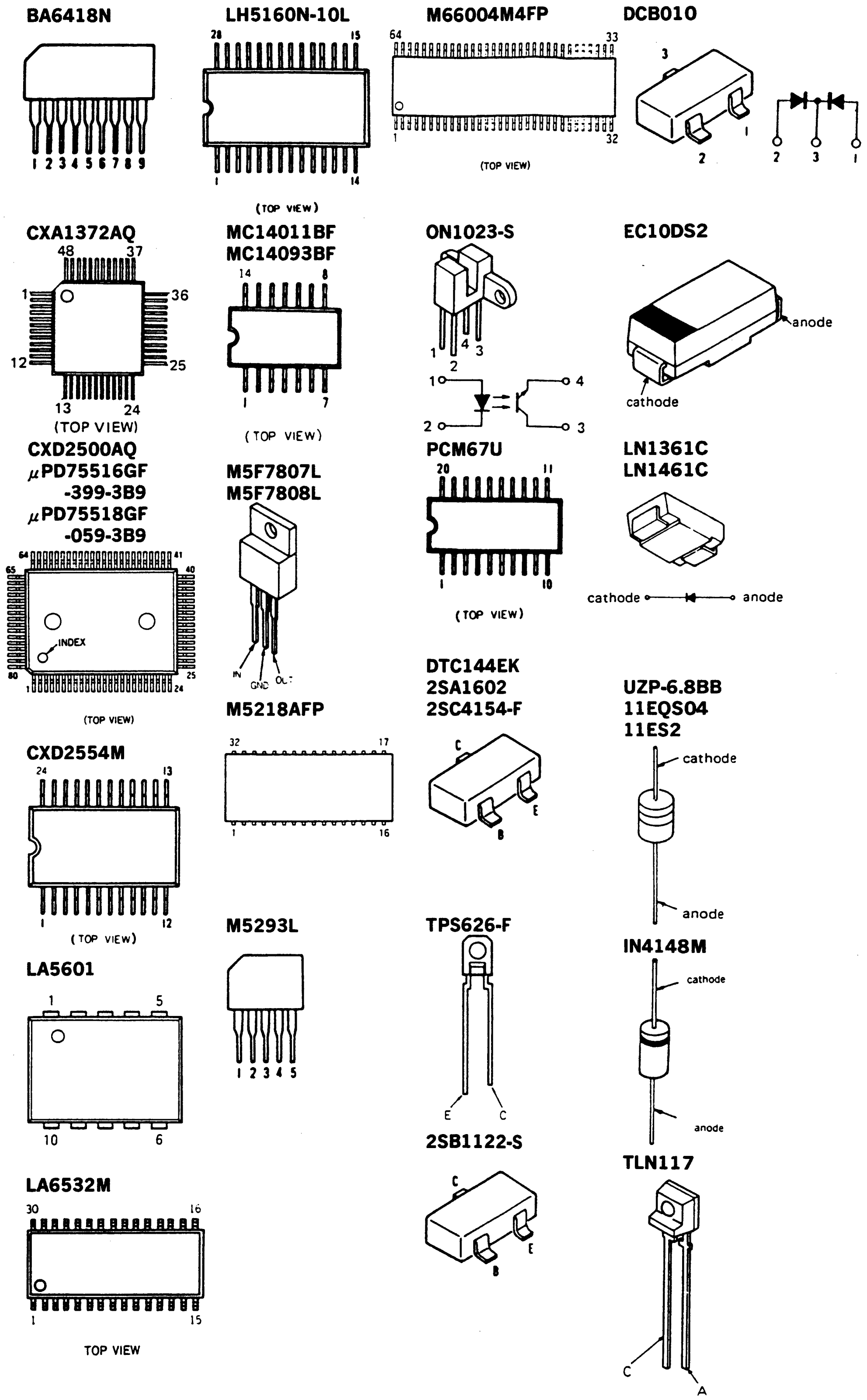

IC250
(ADJ)
IC209

[CDM BOARD] -Conductor Side-



SECTION 4
DIAGRAMS

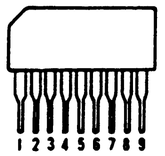
4-1. SEMICONDUCTOR LEAD LAYOUTS


BA6418N
1 2 3 4 5 6 7 8 9
LH5160N-10L
28
15
1
14
(TOP VIEW)
M66004M4FP
64
33
1
32
(TOP VIEW)
DCB010
3
1
2
2
3
1
CXA1372AQ
48
37
1
36
12
25
13
24
(TOP VIEW)
MC14011BF
MC14093BF
14
8
1
7
(TOP VIEW)
ON1023-S
1
4
3
2
1
2
4
3
EC10DS2
anode
cathode
CXD2500AQ
μPD75516GF
-399-3B9
μPD75518GF
-059-3B9
64
41
65
40
80
25
1
24
INDEX
(TOP VIEW)
M5F7807L
M5F7808L
IN
GND
OUT
PCM67U
20
11
1
10
(TOP VIEW)
LN1361C
LN1461C
cathode
anode
DTC144EK
2SA1602
2SC4154-F
C
B
E
UZP-6.8BB
11EQS04
11ES2
cathode
anode
M5218AFP
32
17
1
16
CXD2554M
24
13
1
12
(TOP VIEW)
M5293L
1 2 3 4 5
TPS626-F
E
C
IN4148M
cathode
anode
LA5601
1
5
10
6
2SB1122-S
C
B
E
TLN117
C
A
LA6532M
30
16
1
15
TOP VIEW

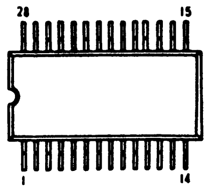
SECTION 4
DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS

BA6418N

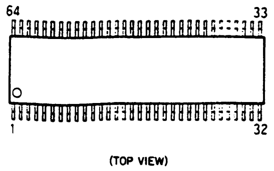


LH5160N-10L

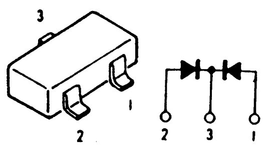


(TOP VIEW)

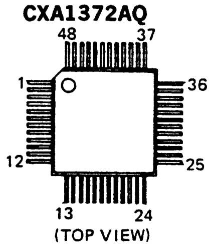
M66004M4FP


64
33
1
32
(TOP VIEW)

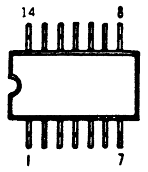
DCB010



CXA1372AQ

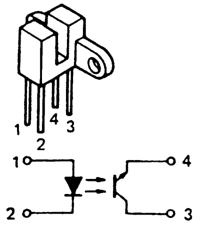

48
37
1
36
12
25
13
24
(TOP VIEW)

MC14011BF
MC14093BF

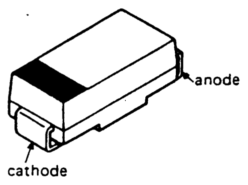


(TOP VIEW)

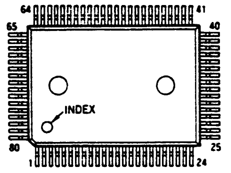
ON1023-S



EC10DS2

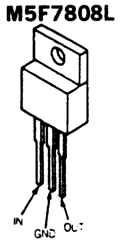

anode
cathode

CXD2500AQ
μPD75516GF
-399-3B9
μPD75518GF
-059-3B9

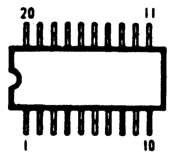

64
41
65
40
INDEX
80
25
1
24

(TOP VIEW)

M5F7807L
M5F7808L

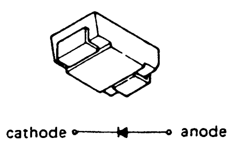


PCM67U

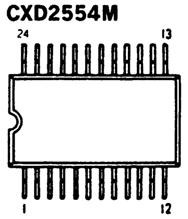


(TOP VIEW)

LN1361C
LN1461C

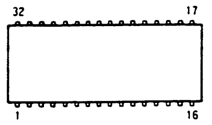

cathode
anode

CXD2554M

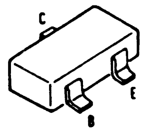


(TOP VIEW)

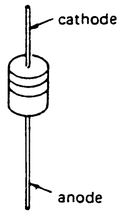
M5218AFP



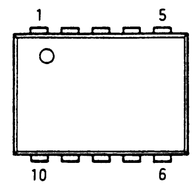
DTC144EK
2SA1602
2SC4154-F



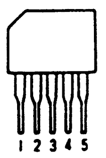
UZP-6.8BB
11EQS04
11ES2


cathode
anode

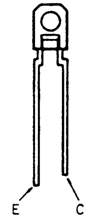
LA5601



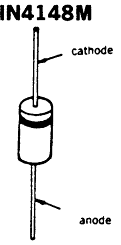
M5293L



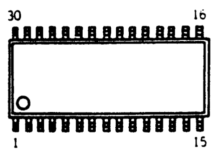
TPS626-F



IN4148M

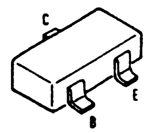

cathode
anode

LA6532M

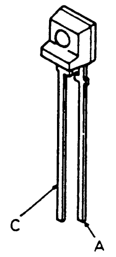


TOP VIEW

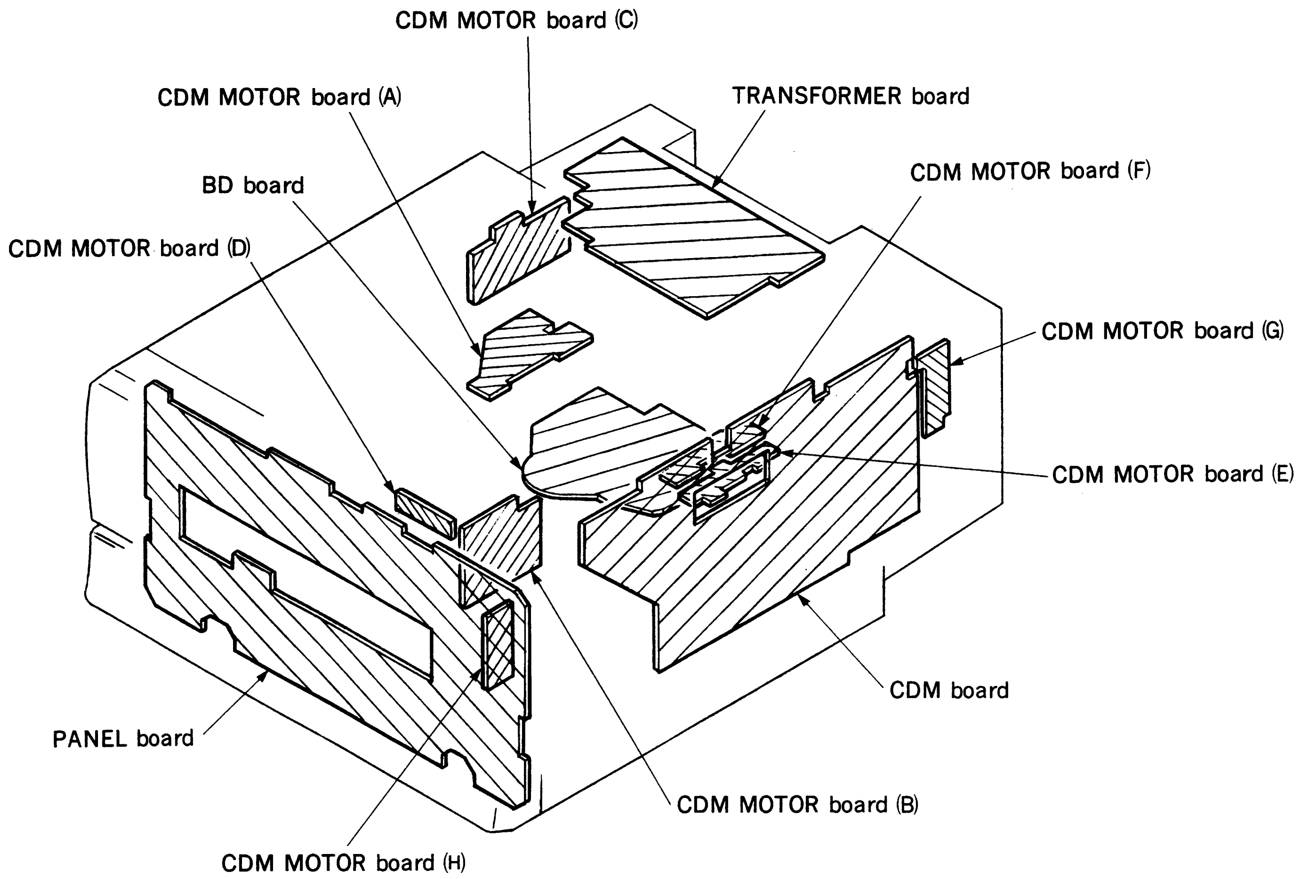
2SB1122-S



TLN117



4-2. CIRCUIT BOARDS LOCATION


CDM MOTOR board (C)
CDM MOTOR board (A)
TRANSFORMER board
BD board
CDM MOTOR board (F)
CDM MOTOR board (D)
CDM MOTOR board (G)
CDM MOTOR board (E)
CDM board
PANEL board
CDM MOTOR board (B)
CDM MOTOR board (H)

• Semiconductor Location

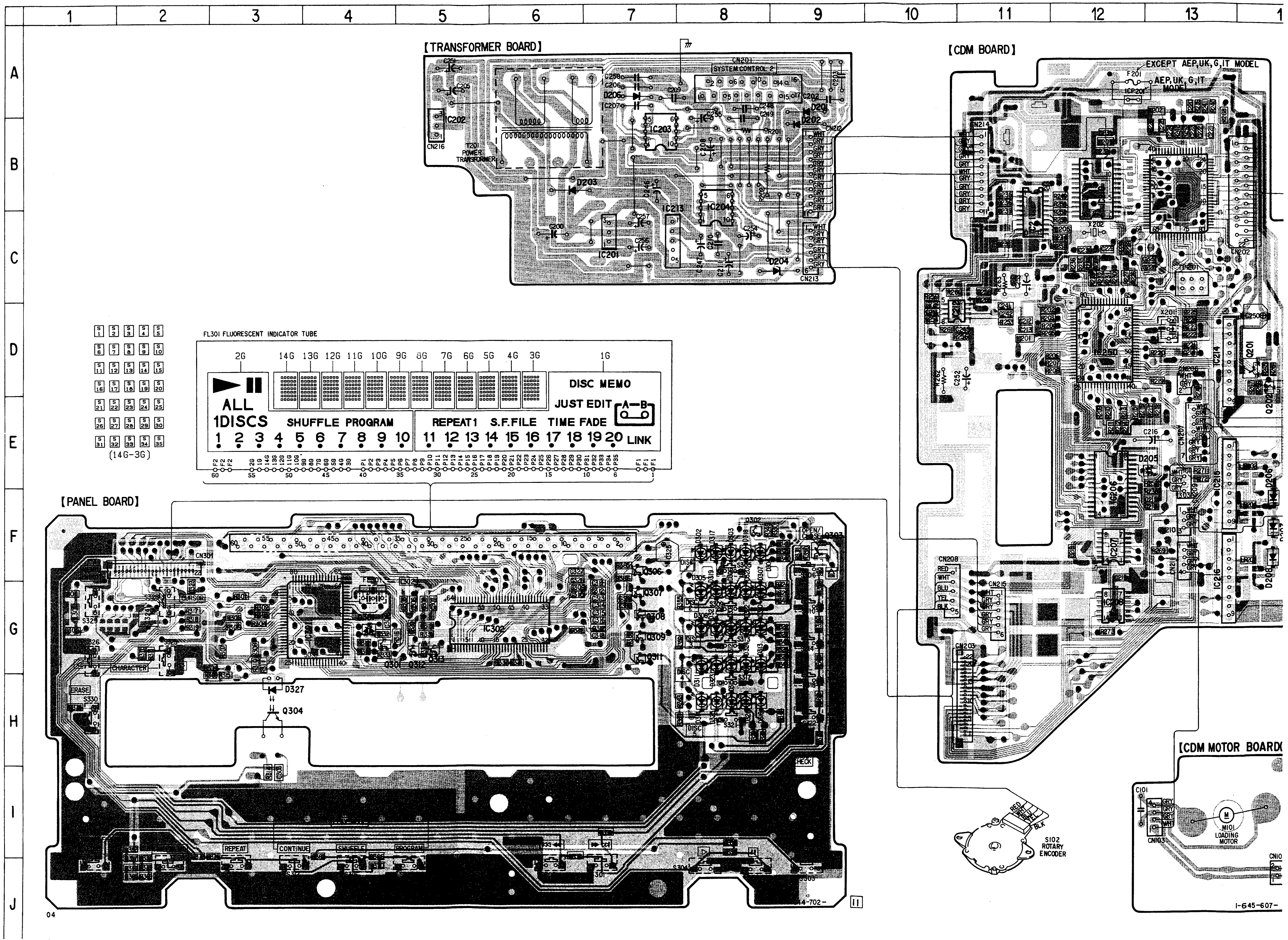
Ref. No.	Location	Ref. No.	Location
D201	A-9	IC101	B-16
D202	B-9	IC102	B-17
D203	B-6	IC201	C-7
D204	C-9	IC202	B-5
D205	E-13	IC203	B-7
D206	F-14	IC204	B-8
(D206)	A-7	IC206	E-12
D207	F-14	IC207	F-12
D208	F-14	IC208	G-12
D301	G-4	IC209	B-13
D302	F-8	IC210	B-12
D303	F-8	IC211	C-11
D304	F-8	IC212	D-10
D305	G-8	IC213	C-7
D306	G-8	IC214	D-13
D307	G-8	IC215	E-13
D308	G-8	IC216	F-13
D309	G-8	IC250	D-12
D310	G-8	IC301	G-4
D311	G-8	IC302	G-6
D312	G-8	IC401	G-17
D313	G-8	IC601	F-15
D314	H-8		
D315	H-8	Q101	C-16
D316	H-8	Q201	D-14
D317	F-8	Q202	D-14
D318	F-8	Q301	G-4
D319	G-8	Q302	F-8
D320	G-8	Q303	F-9
D321	G-8	Q304	H-3
D322	G-8	Q306	F-7
D323	G-8	Q307	G-7
D324	G-8	Q308	G-7
D325	H-8	Q309	G-7
D326	H-8	Q311	G-7
D327	H-3	Q312	G-5
		Q313	G-5

(   ): TRANSFORMER BOARD

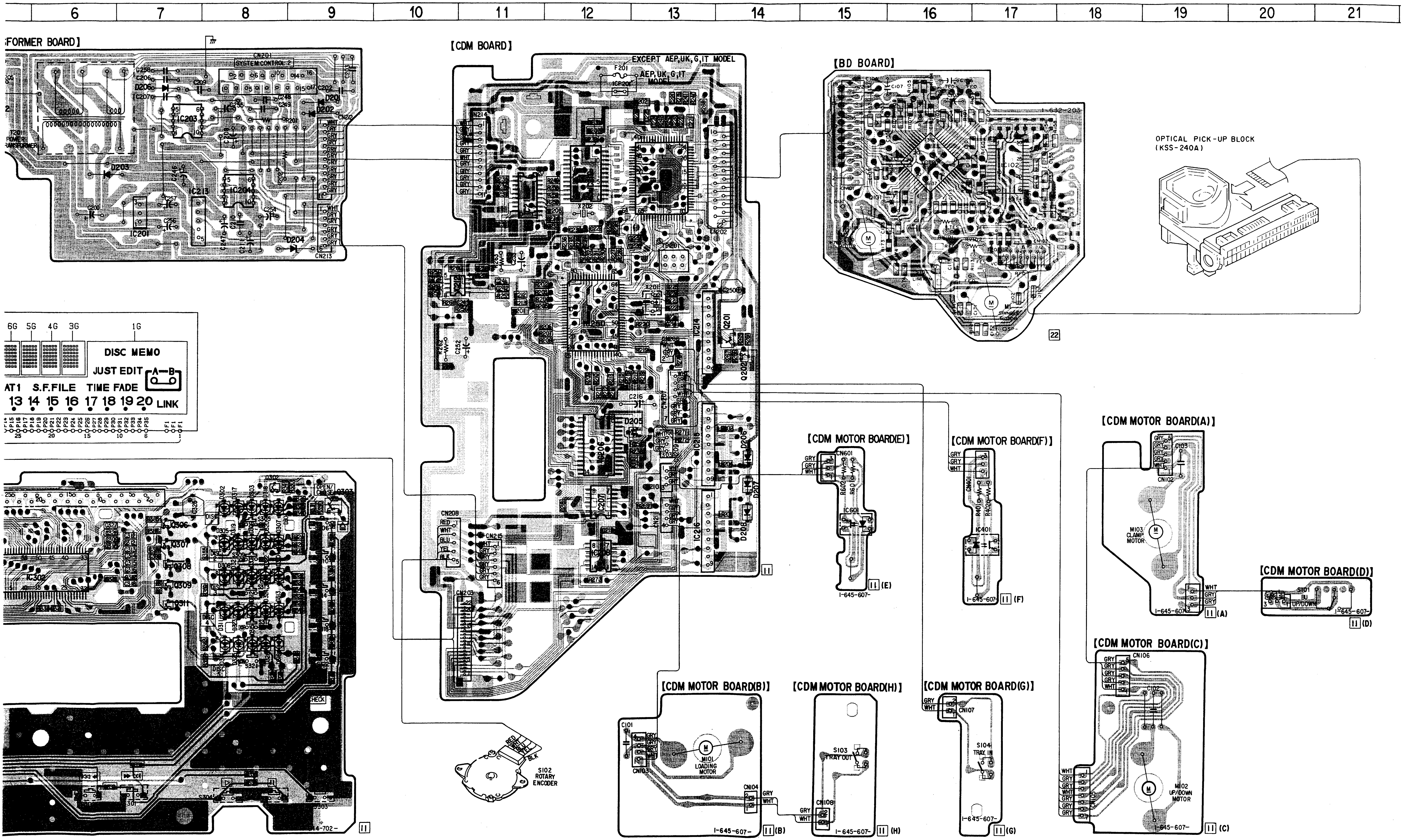
Note:

- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ○ ▨ : Pattern of the rear side.
- G: Germany model
- IT: Italian model

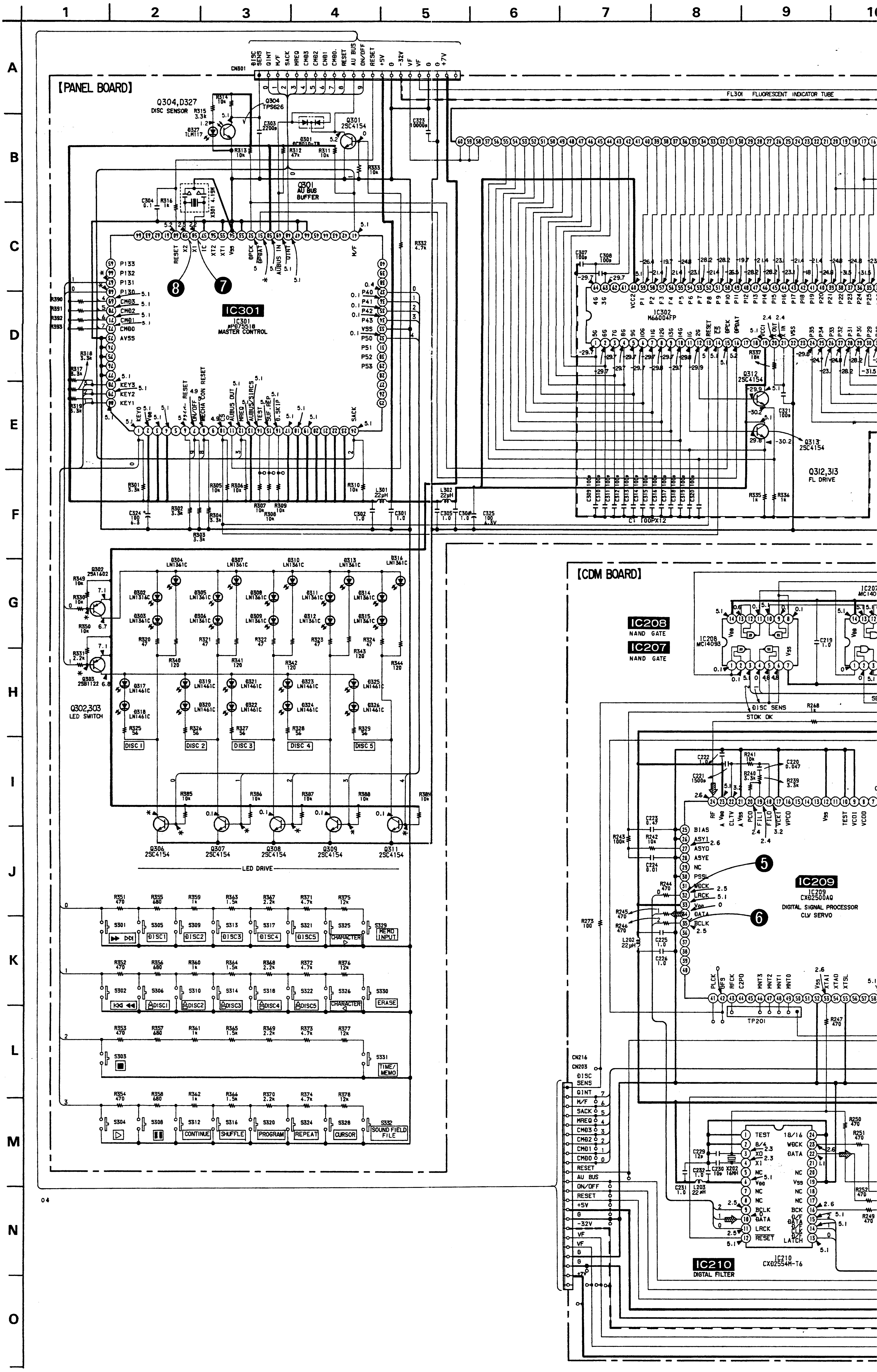
4-3. PRINTED WIRING BOARDS • Refer to page 9 for Semiconductor Lead Layouts.

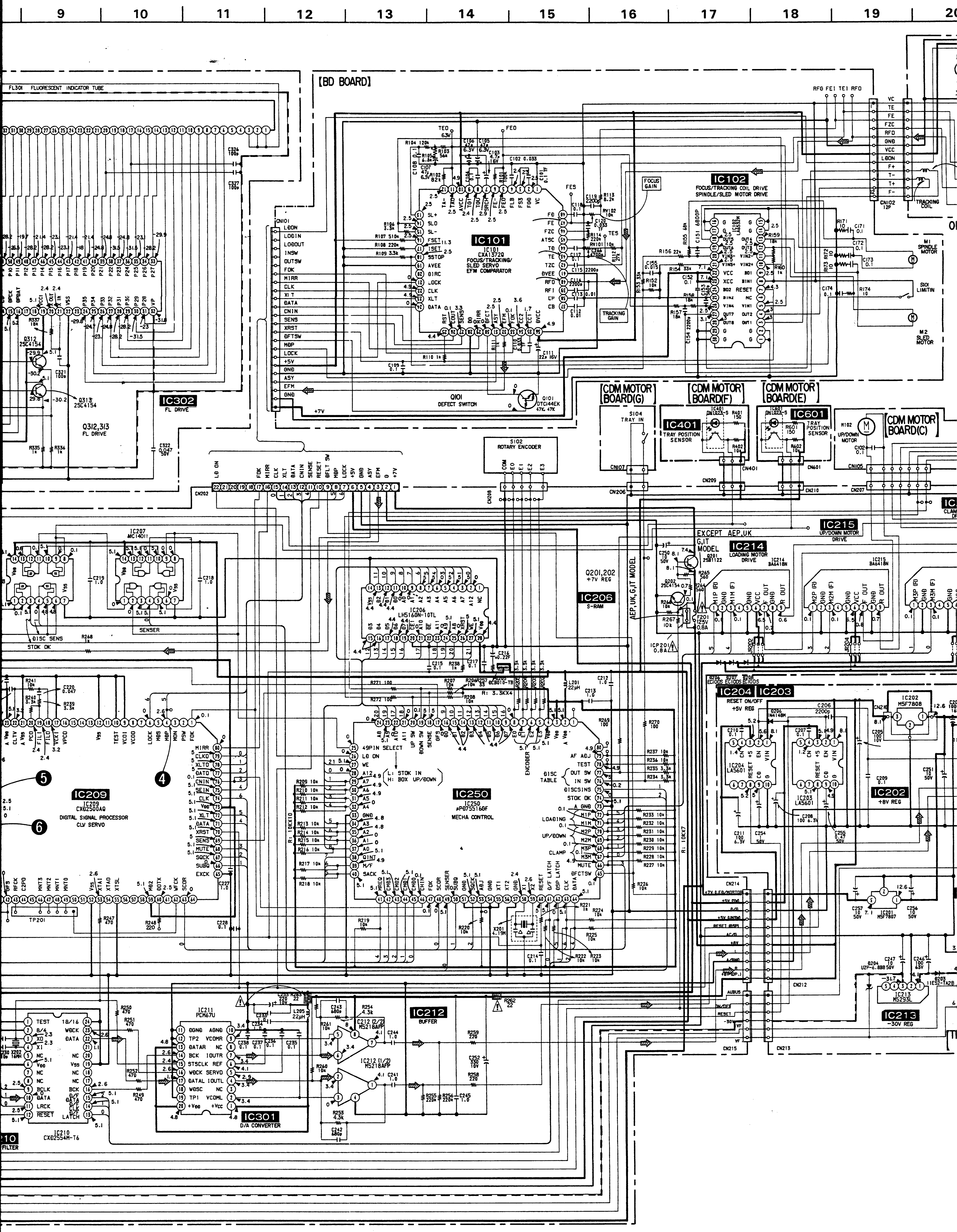

1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
J
【TRANSFORMER BOARD】
CN201 SYSTEM CONTROL 2
T201 POWER TRANSFORMER
IC202
IC203
IC204
IC201
IC213
D203
D204
D206
D201
D202
CN216
CN213
【CDM BOARD】
EXCEPT AEP,UK,G,IT MODEL
AEP,UK,G,IT MODEL
F201
CN214
CN202
CN207
CN208
CN215
CN203
CN211
X201
X202
Q201
Q202
D205
IC206
IC207
IC216
FL301 FLUORESCENT INDICATOR TUBE
2G
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
1G
ALL
1DISCS
SHUFFLE PROGRAM
REPEAT1
S.F.FILE
TIME FADE
DISC MEMO
JUST EDIT
A—B
LINK
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
(14G-3G)
【PANEL BOARD】
CN301
IC302
CURSOR
CHARACTER
ERASE
S330
D327
Q304
Q301
Q312
Q306
Q307
Q308
Q309
Q311
Q302
OPEN/
DISC
CHECK
REPEAT
CONTINUE
SHUFFLE
PROGRAM
04
-702-
S102 ROTARY ENCODER
RED
BLK
【CDM MOTOR BOARD
C101
CN103
M101 LOADING MOTOR
1-645-607-

ad Layouts.

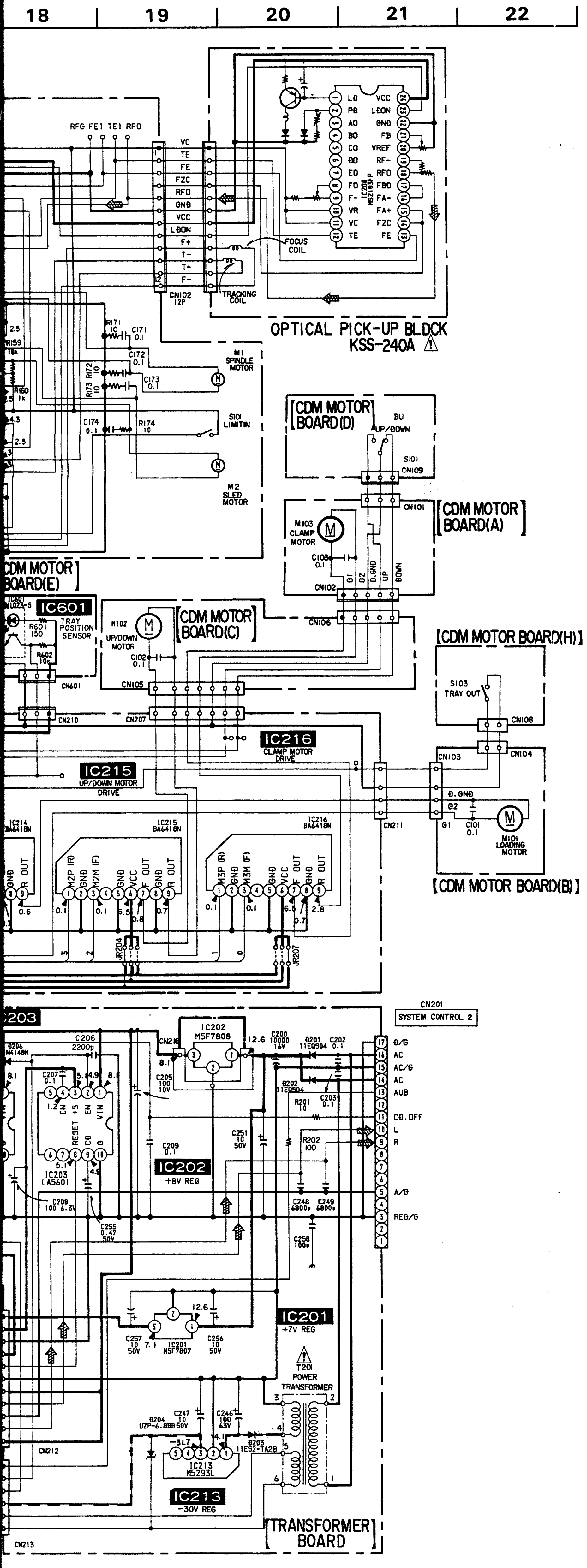

6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
FORMER BOARD]
T201 POWER TRANSFORMER
CN201 SYSTEM CONTROL 2
IC201
IC203
IC204
IC213
D202
D203
D204
D206
CN212
CN213
WHT
GRY
[CDM BOARD]
EXCEPT AEP,UK,G,IT MODEL
F201
AEP,UK,G,IT MODEL
ICP201
CN214
CN202
X201
X202
Q201
Q202
IC206
IC207
IC214
IC215
IC216
D205
D206
D207
D208
C216
C252
R262
CN207
CN208
RED
WHT
BLU
YEL
BLK
CN215
CN203
CN210
CN211
[BD BOARD]
1-632-203-
IC101
IC102
M
M1 SPINDLE MOTOR
LIMIT SW
22
OPTICAL PICK-UP BLOCK (KSS-240A)
6G 5G 4G 3G 1G
DISC MEMO
JUST EDIT
A—B
AT1 S.F.FILE TIME FADE
13 14 15 16 17 18 19 20 LINK
25 20 15 10 6
IC302
Q306
Q307
Q308
Q309
Q311
OPEN/CLOSE
CHECK
-702-
11
S102 ROTARY ENCODER
RED
BLK
[CDM MOTOR BOARD(E)]
CN601
IC601
R601
R602
1-645-607-
11 (E)
[CDM MOTOR BOARD(F)]
CN401
IC401
R401
R402
1-645-607-
11 (F)
[CDM MOTOR BOARD(A)]
CN102
C103
M103 CLAMP MOTOR
1-645-607-
11 (A)
[CDM MOTOR BOARD(D)]
S101 BU UP/DOWN
645-607-
11 (D)
[CDM MOTOR BOARD(C)]
CN106
C102
M102 UP/DOWN MOTOR
645-607-
11 (C)
[CDM MOTOR BOARD(B)]
C101
CN103
M101 LOADING MOTOR
CN104
1-645-607-
11 (B)
[CDM MOTOR BOARD(H)]
CN108
S103 TRAY OUT
1-645-607-
11 (H)
[CDM MOTOR BOARD(G)]
CN107
S104 TRAY IN
1-645-607-
11 (G)

4-4. SCHEMATIC DIAGRAM • Refer to page 17 for IC Block Diagrams.

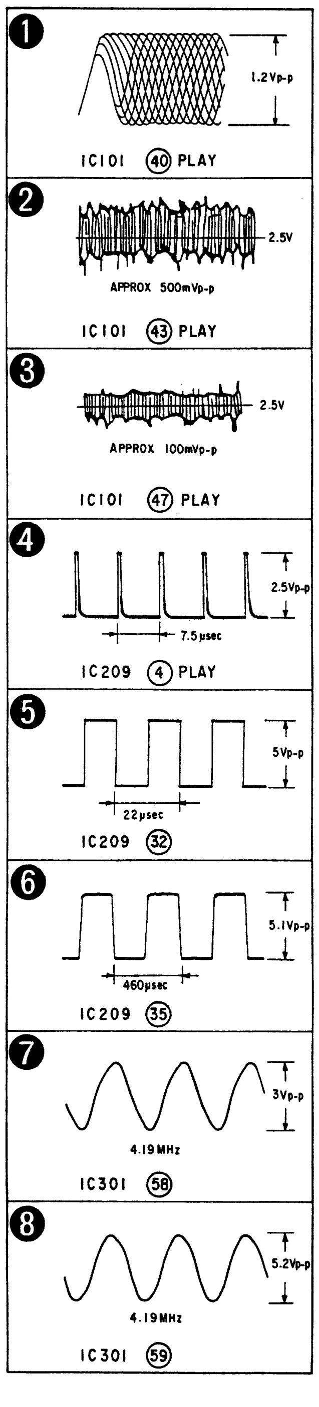

1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CN301
DISC SENS
QINT
W/F
SACK
MREQ
CMB3
CMB2
CMB1
CMB0
RESET
AU BUS
ON/OFF
RESET
+5V
-32V
VF
+7V
[PANEL BOARD]
Q304,D327 DISC SENSOR
Q304 TPS626
Q301 2SC4154
Q301 AU BUS BUFFER
FL301 FLUORESCENT INDICATOR TUBE
IC301
IC301 uPD75518 MASTER CONTROL
IC302 M66004FP
Q312 2SC4154
Q313 2SC4154
Q312,313 FL DRIVE
C: 100PX12
Q302 2SA1602
Q303 2SB1122
Q302,303 LED SWITCH
DISC 1
DISC 2
DISC 3
DISC 4
DISC 5
Q306 2SC4154
Q307 2SC4154
Q308 2SC4154
Q309 2SC4154
Q311 2SC4154
LED DRIVE
MEMO INPUT
CHARACTER
ERASE
TIME/MEMO
CONTINUE
SHUFFLE
PROGRAM
REPEAT
CURSOR
SOUND FIELD FILE
[CDM BOARD]
IC208 NAND GATE
IC207 NAND GATE
IC208 MC14093
DISC SENS
STOK OK
IC209
IC209 CXD2500AQ
DIGITAL SIGNAL PROCESSOR CLV SERVO
TP201
CN216
CN203
IC210
DIGTAL FILTER
IC210 CXD2554M-T6
04
5
6
7
8



9
10
11
12
13
14
15
16
17
18
19
20
FL301 FLUORESCENT INDICATOR TUBE
[BD BOARD]
IC101
CXA1372Q
FOCUS/TRACKING/SLED SERVO EFM COMPARATOR
IC102
FOCUS/TRACKING COIL DRIVE SPINDLE/SLED MOTOR DRIVE
FOCUS GAIN
TRACKING GAIN
TRACKING COIL
M1 SPINDLE MOTOR
M2 SLED MOTOR
S101 LIMIT IN
CN101
CN102 12P
Q101 DEFECT SWITCH
Q101 DTC144EK
IC302
FL DRIVE
Q312,313 FL DRIVE
[CDM MOTOR BOARD(G)]
[CDM MOTOR BOARD(F)]
[CDM MOTOR BOARD(E)]
[CDM MOTOR BOARD(C)]
S104 TRAY IN
IC401 TRAY POSITION SENSOR
IC601 TRAY POSITION SENSOR
M102 UP/DOWN MOTOR
S102 ROTARY ENCODER
CN202
CN208
CN206
CN209
CN210
CN207
IC207 MC14011
SENSER
DISC SENS
STOK OK
IC215 UP/DOWN MOTOR DRIVE
IC214 LOADING MOTOR DRIVE
EXCEPT AEP,UK G,IT MODEL
AEP,UK,G,IT MODEL
Q201,202 +7V REG
IC206 S-RAM
IC206 LH5160N-10TL
IC204 IC203 RESET ON/OFF +5V REG
IC202 M5F7808
IC202 +8V REG
IC209
IC209 CXD2500AQ
DIGITAL SIGNAL PROCESSOR CLV SERVO
IC250
IC250 µPD75516GF
MECHA CONTROL
49PIN SELECT
L: STOK IN
H: BOX UP/DOWN
DISC TABLE
LOADING
UP/DOWN
CLAMP
ENCODER
TP201
X201 4.19M
IC211 PCM67U
IC301 D/A CONVERTER
IC212 BUFFER
IC212 (1/2) M5218AFP
IC212 (2/2) M5218AFP
IC210 CXD2554M-T6
FILTER
IC213 M5293L
IC213 -30V REG
IC201 M5F7807
CN212
CN213
CN214
CN215


18
19
20
21
22
RFG FEI TEI RFO
VC
TE
FE
FZC
RFO
GND
VCC
LDON
F+
T-
T+
F-
CN102 12P
LD
PD
AD
BD
CD
DD
ED
FD
F-
VR
VC
TE
VCC
LDON
GND
FB
VREF
RF-
RFO
FBO
FA-
FA+
FZC
FE
IC208 M52105FP
FOCUS COIL
TRACKING COIL
OPTICAL PICK-UP BLOCK
KSS-240A
R171 10
C171 0.1
C172 0.1
R172 10
C173 0.1
R173 10
C174 0.1
R174 10
M1 SPINDLE MOTOR
S101 LIMIT IN
M2 SLED MOTOR
R159 18k
R160 1k
CDM MOTOR BOARD(D)
BU UP/DOWN
S101
CN109
CN101
CDM MOTOR BOARD(A)
M103 CLAMP MOTOR
C103 0.1
CN102
G1
G2
D.GND
UP
BDWN
CDM MOTOR BOARD(E)
IC601
TRAY POSITION SENSOR
R601 150
R602 10k
CN601
M102 UP/DOWN MOTOR
C102 0.1
CDM MOTOR BOARD(C)
CN106
CN105
CDM MOTOR BOARD(H)
S103 TRAY OUT
CN108
CN210
CN207
IC216
CLAMP MOTOR DRIVE
IC215
UP/DOWN MOTOR DRIVE
CN103
CN104
D.GND
G2
G1
C101 0.1
M101 LOADING MOTOR
CN211
IC214 BA6418N
IC215 BA6418N
IC216 BA6418N
M2P (R)
GND
M2M (F)
GND
VCC
F OUT
GND
R OUT
M3P (R)
GND
M3M (F)
GND
VCC
F OUT
GND
R OUT
0.1
0.1
6.5
0.8
0.7
0.6
2.8
JR204
JR207
CDM MOTOR BOARD(B)
IC203
IC202 M5F7808
C206 2200p
D206 1N4148M
CN216
12.6
C200 10000 16V
D201 11EQS04
C202 0.1
C205 100 10V
D202 11EQS04
R201 10
C203 0.1
C207 0.1
RESET
+5
EN
VIN
CE
G
IC203 LA5601
C208 100 6.3V
C209 0.1
IC202
+8V REG
C251 10 50V
R202 100
C248 6800p
C249 6800p
C255 0.47 50V
C258 100p
CN201 SYSTEM CONTROL 2
D/G
AC
AC/G
AC
AUB
CD.OFF
L
R
A/G
REG/G
IC201
+7V REG
C257 10 50V
IC201 M5F7807
C256 10 50V
T201 POWER TRANSFORMER
D204 UZP-6.8BB
C247 10 50V
C246 100 63V
D203 11ES2-TA2B
-31.7
IC213 M5293L
IC213
-30V REG
CN212
CN213
TRANSFORMER BOARD

• Waveforms



Note:

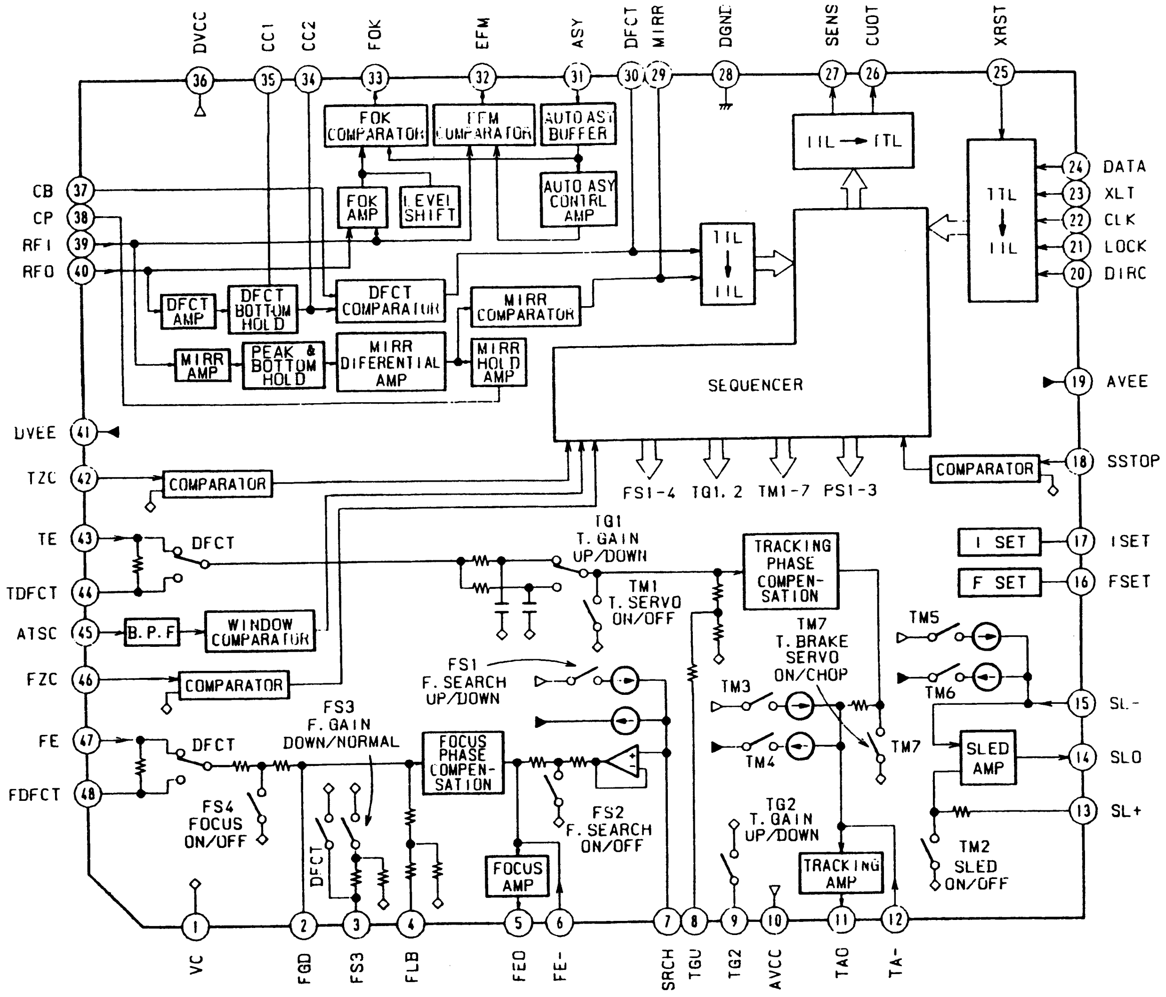
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ▭ : nonflammable resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

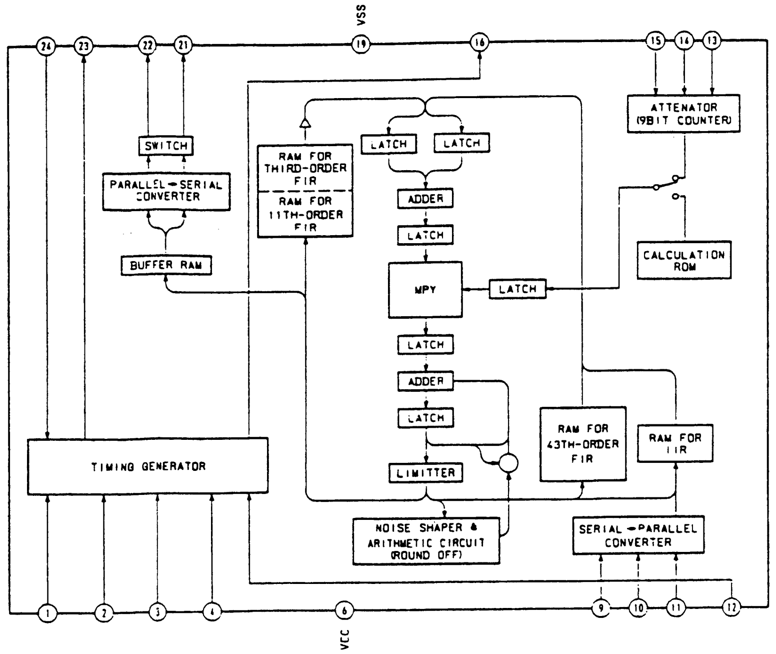
- ▬▬ : B+ Line
- ▬ ▬ : B– Line
- ☐ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
- G: Germany model
- IT: Italian model

- **IC Block Diagrams**

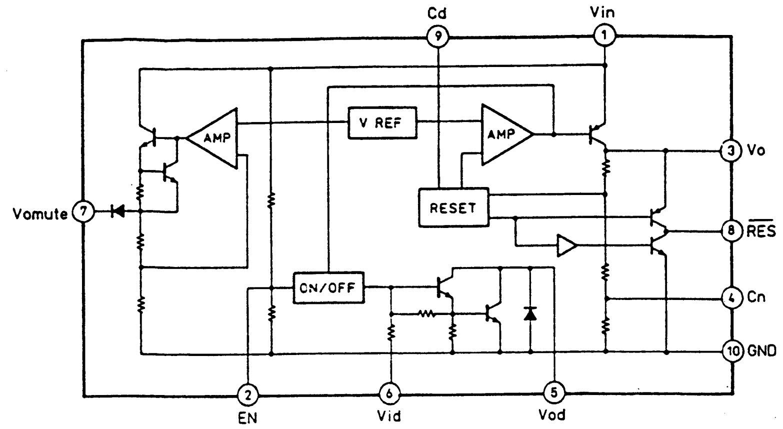
IC101 CXA1372Q


DVCC
CC1
CC2
FOK
EFM
ASY
DFCT
MIRR
DGND
SENS
CUOT
XRST
FOK COMPARATOR
EFM COMPARATOR
AUTO ASY BUFFER
FOK AMP
LEVEL SHIFT
AUTO ASY CONTRL AMP
TTL → ITL
TTL ↓ IIL
IIL ↓ TTL
DATA
XLT
CLK
LOCK
DIRC
CB
CP
RFI
RFO
DFCT AMP
DFCT BOTTOM HOLD
DFCT COMPARATOR
MIRR COMPARATOR
MIRR AMP
PEAK & BOTTOM HOLD
MIRR DIFFERENTIAL AMP
MIRR HOLD AMP
SEQUENCER
AVEE
DVEE
TZC
COMPARATOR
FS1-4 TG1, 2 TM1-7 PS1-3
SSTOP
TE
DFCT
TDFCT
ATSC
B.P.F
WINDOW COMPARATOR
FZC
FE
FDFCT
TG1 T.GAIN UP/DOWN
TM1 T.SERVO ON/OFF
TRACKING PHASE COMPEN-SATION
TM7 T.BRAKE SERVO ON/CHOP
I SET
F SET
ISET
FSET
TM5
TM6
FS1 F.SEARCH UP/DOWN
FS3 F.GAIN DOWN/NORMAL
TM3
TM4
TM7
SL-
SLED AMP
SLO
SL+
FOCUS PHASE COMPEN-SATION
FS4 FOCUS ON/OFF
FS2 F.SEARCH ON/OFF
TG2 T.GAIN UP/DOWN
TM2 SLED ON/OFF
FOCUS AMP
TRACKING AMP
VC
FGD
FS3
FLB
FEO
FE-
SRCH
TGU
TG2
AVCC
TAO
TA-

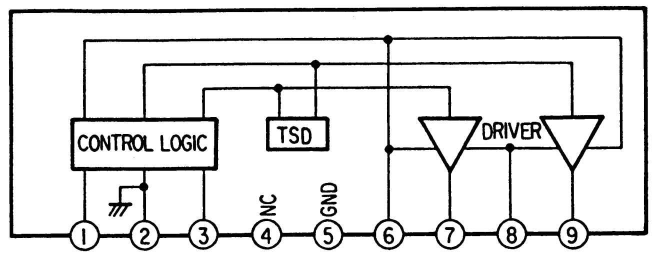
IC210 CXD2554M


VSS
VCC
SWITCH
PARALLEL→SERIAL CONVERTER
BUFFER RAM
RAM FOR THIRD-ORDER FIR
RAM FOR 11TH-ORDER FIR
LATCH
ADDER
MPY
LIMITTER
ATTENATOR (9BIT COUNTER)
CALCULATION ROM
RAM FOR 43TH-ORDER FIR
RAM FOR IIR
TIMING GENERATOR
NOISE SHAPER & ARITHMETIC CIRCUIT (ROUND OFF)
SERIAL→PARALLEL CONVERTER

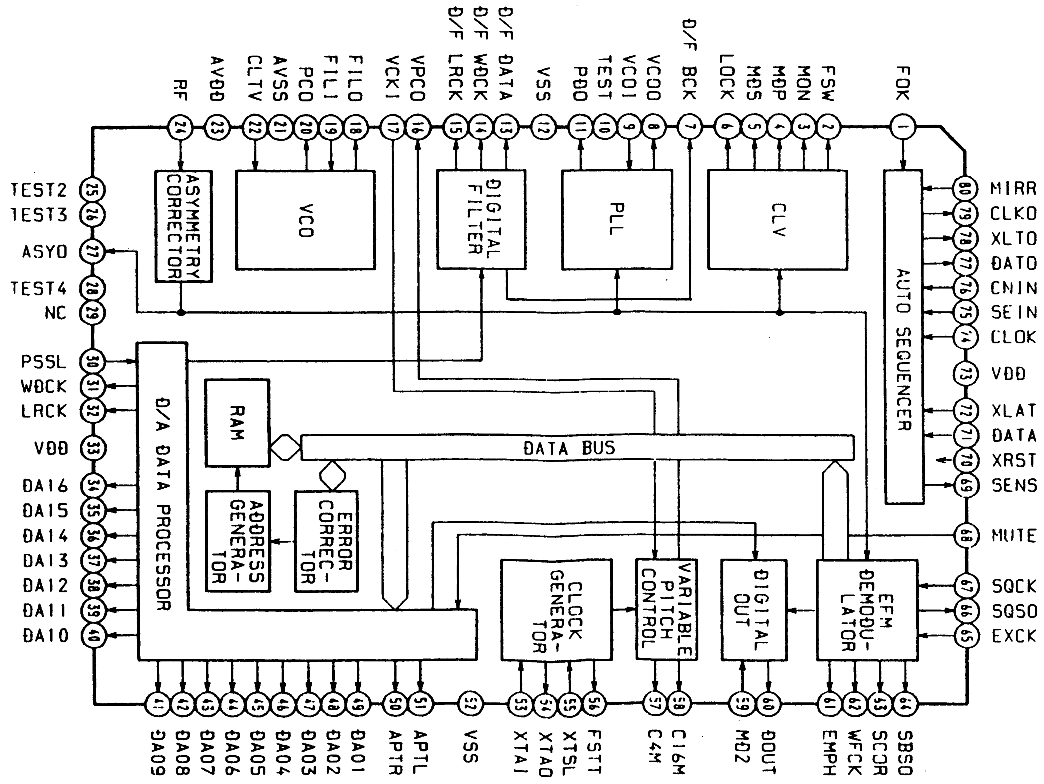
IC203, 204 LA5601


Cd
Vin
AMP
V REF
AMP
Vo
Vomute
RESET
RES
CN/OFF
Cn
GND
EN
Vid
Vod

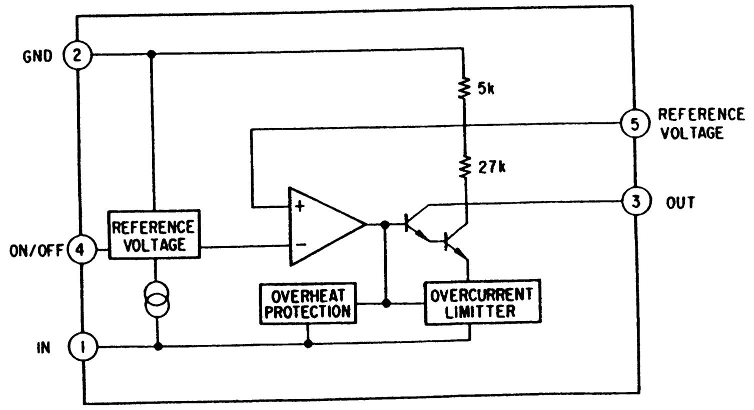
IC214-216 BA6418N


CONTROL LOGIC
TSD
DRIVER
NC
GND

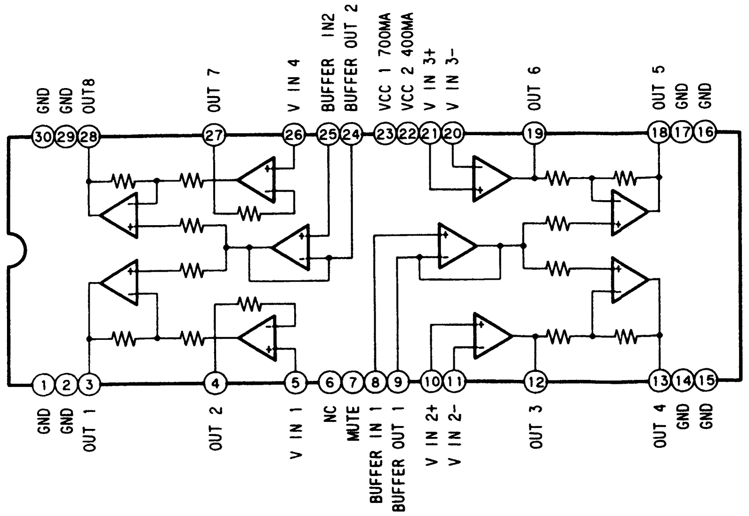
IC209 CXD2500AQ


RF
AVDD
CLTV
AVSS
PCO
FILI
FILO
VCKI
VPCO
D/F LRCK
D/F WDCK
D/F DATA
VSS
PDO
TEST
VCOI
VCOO
D/F BCK
LOCK
MDS
MDP
MON
FSW
FOK
TEST2
TEST3
ASYO
TEST4
NC
PSSL
WDCK
LRCK
VDD
DA16
DA15
DA14
DA13
DA12
DA11
DA10
ASYMMETRY CORRECTOR
VCO
DIGITAL FILTER
PLL
CLV
AUTO SEQUENCER
MIRR
CLKO
XLTO
DATO
CNIN
SEIN
CLOK
VDD
XLAT
DATA
XRST
SENS
MUTE
SQCK
SQSO
EXCK
D/A DATA PROCESSOR
RAM
ADDRESS GENERATOR
ERROR CORRECTOR
DATA BUS
CLOCK GENERATOR
VARIABLE PITCH CONTROL
DIGITAL OUT
EFM DEMODULATOR
DA09
DA08
DA07
DA06
DA05
DA04
DA03
DA02
DA01
APTR
APTL
VSS
XTAI
XTAO
XTSL
FSTT
C4M
C16M
MD2
DOUT
EMPH
WFCK
SCOR
SBSO

IC213 M5293L


GND
5k
27k
REFERENCE VOLTAGE
OUT
ON/OFF
REFERENCE VOLTAGE
OVERHEAT PROTECTION
OVERCURRENT LIMITTER
IN

IC102 LA6532M


GND
GND
OUT8
OUT 7
V IN 4
BUFFER IN2
BUFFER OUT 2
VCC 1 700MA
VCC 2 400MA
V IN 3+
V IN 3-
OUT 6
OUT 5
GND
GND
GND
GND
OUT 1
OUT 2
V IN 1
NC
MUTE
BUFFER IN 1
BUFFER OUT 1
V IN 2+
V IN 2-
OUT 3
OUT 4
GND
GND

SECTION 5
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

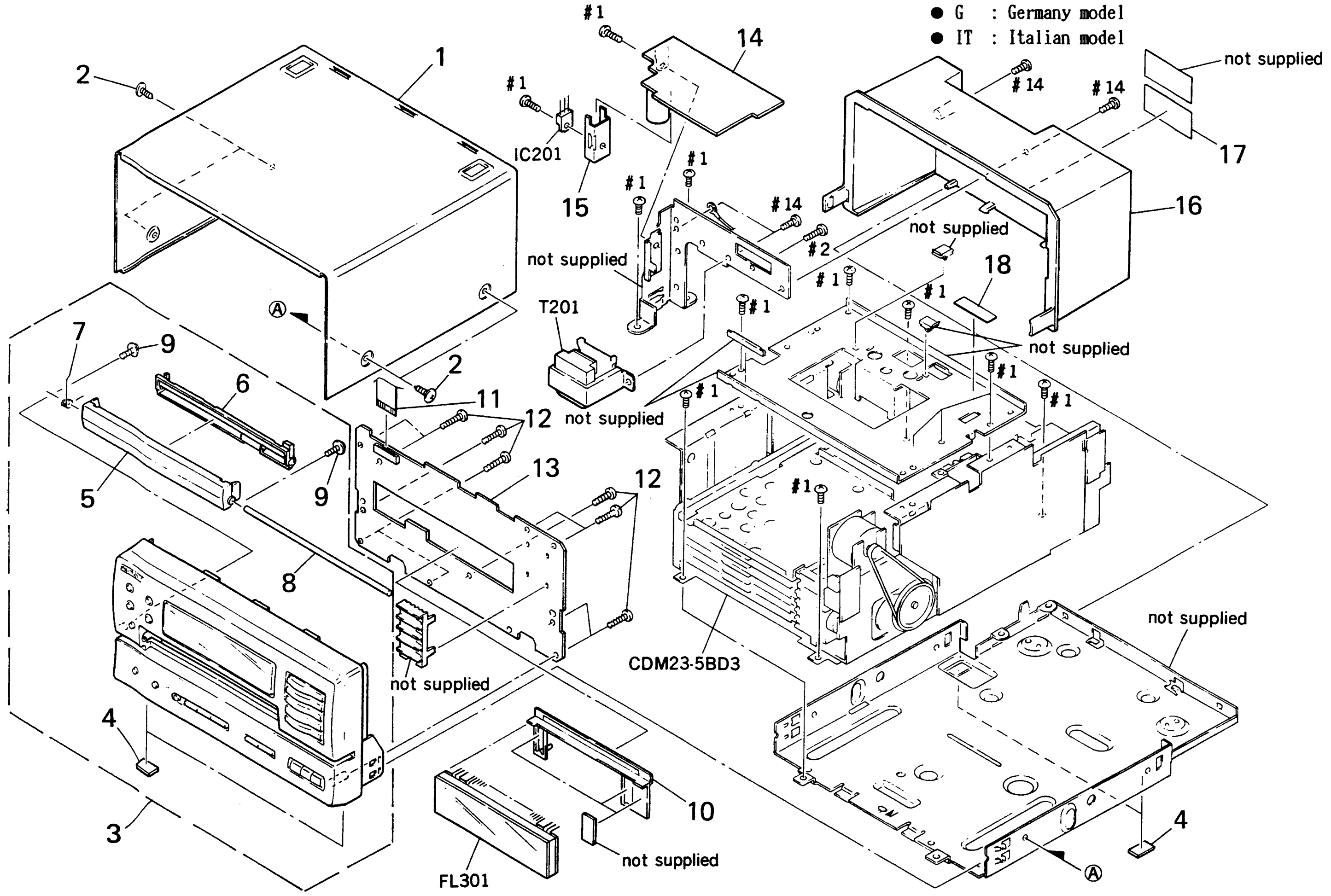
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- CND : Canadian model
- G : Germany model
- IT : Italian model

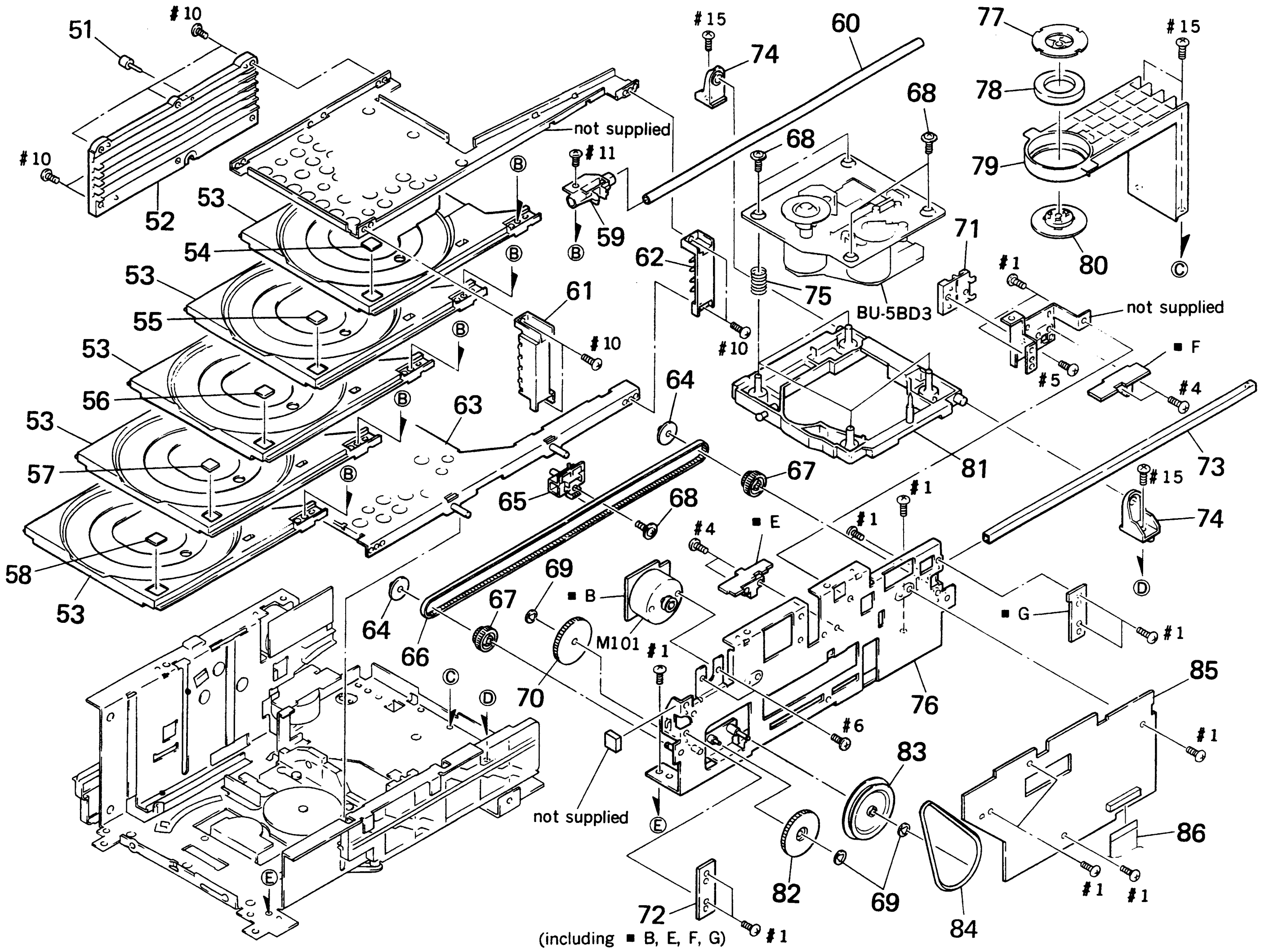
5-1. CABINET SECTION


1
2
#1
14
#1
IC201
15
#14
#14
not supplied
17
16
#1
#1
#14
#2
not supplied
not supplied
18
#1
#1
T201
#1
not supplied
#1
Ⓐ
7
9
6
2
11
12
not supplied
#1
#1
5
9
13
12
#1
8
CDM23-5BD3
not supplied
not supplied
4
not supplied
3
FL301
10
not supplied
4
Ⓐ

Ref. No.	Part No.	Description	Remark
* 1	4-944-522-42	CASE (K211522)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
3	X-4942-946-1	PANEL ASSY, FRONT	
4	4-930-336-21	FOOT (FELT)	
5	4-954-694-01	DOOR (A)	
6	4-954-698-01	DOOR (B)	
7	4-954-693-01	SPRING (DOOR)	
8	4-954-695-01	SHAFT (DOOR)	
9	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
* 10	4-954-701-01	HOLDER (FL TUBE)	
11	1-696-633-11	WIRE (FLAT TYPE)	
12	4-951-620-01	SCREW (2. 6X8), +BVTP	

Ref. No.	Part No.	Description	Remark
* 13	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
* 13	A-4649-462-A	PANEL BOARD, COMPLETE (G)	
* 13	A-4649-465-A	PANEL BOARD, COMPLETE (AEP, UK, IT)	
* 14	A-4649-456-A	TRANSFORMER BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
* 14	A-4649-461-A	TRANSFORMER BOARD, COMPLETE (G)	
* 14	A-4649-464-A	TRANSFORMER BOARD, COMPLETE (AEP, UK, IT)	
* 15	3-309-144-21	HEAT SINK	
* 16	4-954-699-01	PANEL, BACK	
* 17	4-941-548-01	LABEL, CLASS 1 (EXCEPT US, CND)	
* 18	3-703-044-26	LABEL, CAUTION (CND)	
FL301	1-519-738-11	INDICATOR TUBE, FLUORESCENT	
IC201	8-759-071-48	IC M5F7807L	
⚠T201	1-450-984-11	TRANSFORMER, POWER	

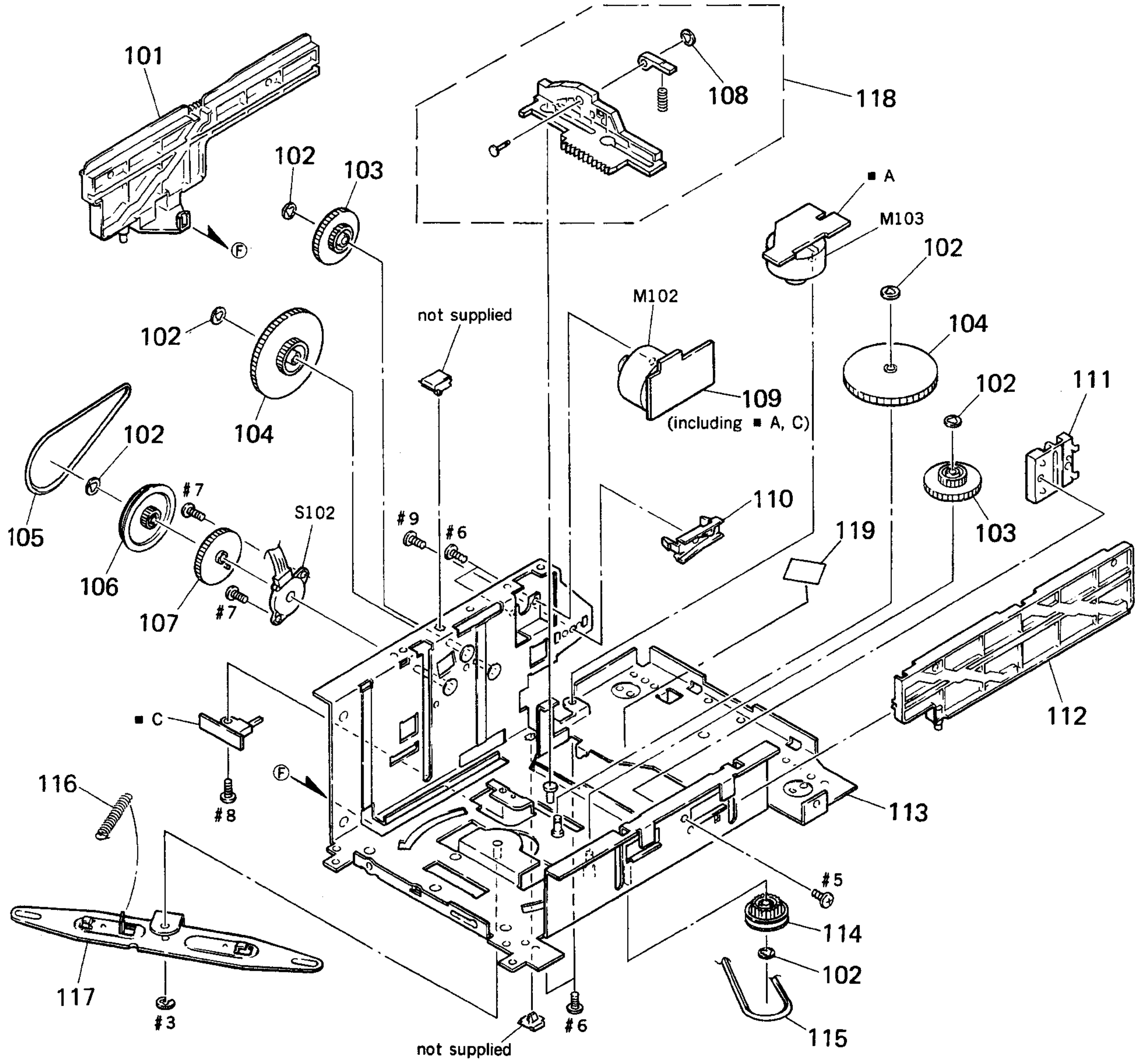
5-2. CD MECHANISM NECTION (1)
(CDM23-5BD3)


51
#10
#15
74
60
77
#15
#10
52
53
54
53
55
53
56
53
57
58
53
not supplied
#11
Ⓑ
59
Ⓑ
68
68
78
79
80
Ⓒ
62
75
BU-5BD3
71
#1
not supplied
61
#10
#10
Ⓑ
Ⓑ
Ⓑ
63
64
■ F
#5
#4
81
73
67
65
68
#15
74
#4
■ E
#1
#1
Ⓓ
69
■ B
67
64
66
M101
#1
70
Ⓒ
Ⓓ
■ G
#1
85
76
#6
#1
83
not supplied
Ⓔ
Ⓔ
86
82
69
84
#1
#1
72
(including ■ B, E, F, G)
#1

Ref. No.	Part No.	Description	Remark
51	4-954-649-01	SHAFT (ST-L)	
52	4-954-644-01	BRACKET (STOCKER L)	
53	4-954-638-01	TABLE, DISK	
54	4-954-651-01	EMBLEM (TABLE)	
55	4-954-651-11	EMBLEM (TABLE)	
56	4-954-651-21	EMBLEM (TABLE)	
57	4-954-651-31	EMBLEM (TABLE)	
58	4-954-651-41	EMBLEM (TABLE)	
59	4-954-639-01	GUIDE (TB)	
60	4-954-648-01	SHAFT (TABLE GUIDE)	
61	4-954-645-01	GUIDE (ST-RF)	
62	4-954-646-01	GUIDE (ST-RR)	
* 63	X-4942-943-1	BRACKET (ST-B) ASSY	
64	4-954-628-01	FLANGE (PULLEY)	
65	4-954-630-01	SLIDER (TB)	
66	4-954-634-01	BELT (SL)	
67	4-954-629-01	PULLEY (SL)	
68	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
69	3-669-595-00	WASHER (2), STOPPER	
70	4-954-627-01	GEAR (SL)	

Ref. No.	Part No.	Description	Remark
* 71	4-954-621-01	STOPPER (TB)	
* 72	1-645-607-11	CDM MOTOR BOARD	
* 73	4-954-631-01	SHAFT (SL GUIDE)	
* 74	4-954-623-01	FULCRUM (BU)	
75	4-948-503-01	SPRING (BU), COMPRESSION	
* 76	X-4942-941-1	BRACKET (SL-A) ASSY	
77	4-929-762-01	YOKE, CHUCKING	
78	1-452-676-11	MAGNET	
79	4-954-650-01	HOLDER (MG)	
80	4-955-230-01	PULLEY (CHECKING)	
* 81	X-4942-942-1	HOLDER (BU) ASSY	
82	4-954-625-01	GEAR (CDM)	
83	3-372-516-01	PULLEY (LOADING)	
84	4-954-624-01	BELT (CDM)	
* 85	A-4649-352-A	CDM BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
* 85	A-4649-463-A	CDM BOARD, COMPLETE (G)	
* 85	A-4649-466-A	CDM BOARD, COMPLETE (AEP, UK, IT)	
86	1-696-634-11	WIRE (FLAT TYPE)	
M101	A-4660-232-A	MOTOR (CDM) ASSY	

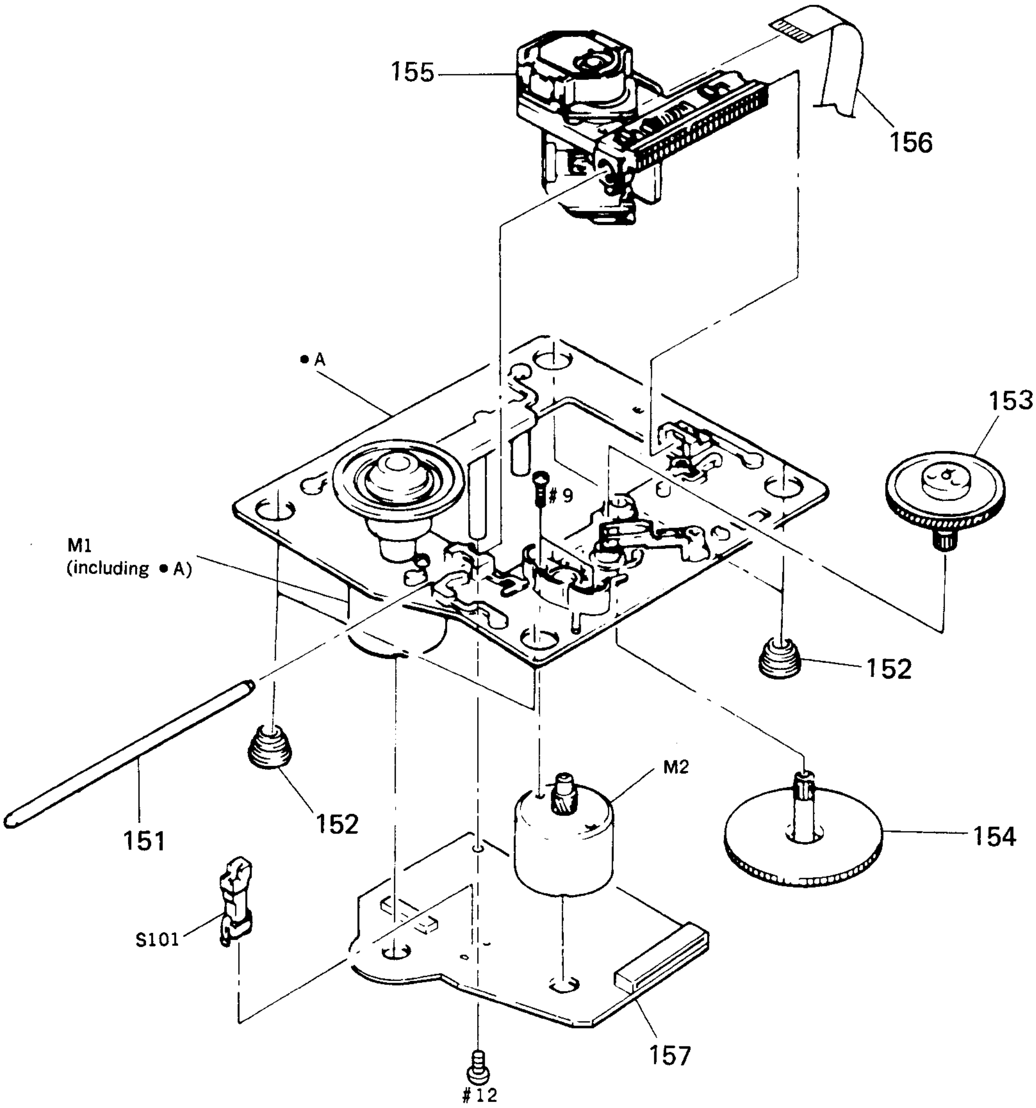
5-3. CD MECHANISM SECTION (2) (CDM23-5BD3)


101
102
103
108
118
■ A
M103
102
M102
not supplied
102
104
104
109
(including ■ A, C)
102
111
105
102
104
#7
S102
#9
#6
110
119
103
106
107
#7
112
■ C
116
#8
113
#5
114
102
117
#3
not supplied
#6
115

Ref. No.	Part No.	Description	Remark
101	X-4942-939-1	SLIDER (ST-L) ASSY	
102	3-669-595-00	WASHER (2), STOPPER	
103	4-954-625-01	GEAR (CDM)	
104	3-372-517-01	GEAR (LOADING)	
105	4-954-624-01	BELT (CDM)	
106	3-372-516-01	PULLEY (LOADING)	
107	4-954-636-01	GEAR (E)	
108	3-681-678-00	WASHER, SLIT	
* 109	1-645-607-11	CDM MOTOR BOARD	
* 110	4-954-633-01	GUIDE (TB-LR)	
* 111	4-954-621-01	STOPPER (TB)	

Ref. No.	Part No.	Description	Remark
112	X-4942-940-1	SLIDER (ST-R) ASSY	
* 113	X-4942-937-1	CHASSIS (CDM) ASSY	
114	4-954-637-01	PULLEY (BU)	
115	4-954-635-01	BELT (BU)	
116	4-955-168-01	SPRING, TENSION	
* 117	4-954-632-01	LEVER (JOINT)	
118	A-4660-167-A	SLIDER (BU CAM) ASSY	
* 119	4-928-473-01	INSULATOR	
M102	A-4460-232-A	MOTOR (CDM) ASSY	
M103	A-4460-232-A	MOTOR (CDM) ASSY	
S102	1-466-819-11	ENCORDER, ROTARY	

5-4. OPTICAL PICK-UP SECTION (BU-5BD3)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
151	4-917-565-01	SHAFT, SLED	
152	4-951-940-01	INSULATOR (BU)	
153	4-917-567-01	GEAR (M)	
154	4-917-564-01	GEAR (P), FLATNESS	
⚠155	8-848-144-11	DEVICE, OPTICAL KSS-240A	
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
* 157	A-4617-371-A	BD BOARD, COMPLETE	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	

SECTION 6
ELECTRICAL PARTS LIST

BD

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- CND : Canadian model
- G : Germany model
- IT : Italian model

Ref. No.	Part No.	Description			Remark
*	A-4617-371-A	BD BOARD, COMPLETE ******************			
		< CAPACITOR >			
C101	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C102	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C103	1-126-163-11	ELECT	4.7uF	20%	50V
C104	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C105	1-126-154-11	ELECT	47uF	20%	6.3V
C106	1-126-154-11	ELECT	47uF	20%	6.3V
C107	1-126-154-11	ELECT	47uF	20%	6.3V
C108	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C109	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-131-367-00	TANTALUM	22uF	10%	20V
C112	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C113	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C114	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C115	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C117	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C118	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C119	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C120	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C151	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C152	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C153	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C154	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C155	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C171	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C172	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C173	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C174	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-568-796-11	SOCKET, CONNECTOR 22P			
CN102	1-568-795-11	SOCKET, CONNECTOR 12P			
		< IC >			
IC101	8-752-053-73	IC CXA1372AQ			
IC102	8-759-822-36	IC LA6532M			
		< JUMPER RESISTOR >			
J101	1-216-295-00	METAL CHIP	0	5%	1/10W
J102	1-216-295-00	METAL CHIP	0	5%	1/10W
		< TRANSISTOR >			
Q101	8-729-901-01	TRANSISTOR DTC144EK			
		< RESISTOR >			
R101	1-216-097-00	METAL CHIP	100K	5%	1/10W
R102	1-216-095-00	METAL CHIP	82K	5%	1/10W
R103	1-216-091-00	METAL CHIP	56K	5%	1/10W
R104	1-216-099-00	METAL CHIP	120K	5%	1/10W
R105	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R108	1-216-105-00	METAL CHIP	220K	5%	1/10W
R109	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R110	1-216-049-00	METAL CHIP	1K	5%	1/10W
R111	1-216-049-00	METAL CHIP	1K	5%	1/10W
R112	1-216-083-00	METAL CHIP	27K	5%	1/10W
R113	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R114	1-216-105-00	METAL CHIP	220K	5%	1/10W
R152	1-216-073-00	METAL CHIP	10K	5%	1/10W
R153	1-216-085-00	METAL CHIP	33K	5%	1/10W
R154	1-216-085-00	METAL CHIP	33K	5%	1/10W
R155	1-216-093-00	METAL CHIP	68K	5%	1/10W
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W
R157	1-216-079-00	METAL CHIP	18K	5%	1/10W
R158	1-216-079-00	METAL CHIP	18K	5%	1/10W
R159	1-216-079-00	METAL CHIP	18K	5%	1/10W
R160	1-216-049-00	METAL CHIP	1K	5%	1/10W
R171	1-216-001-00	METAL CHIP	10	5%	1/10W
R172	1-216-001-00	METAL CHIP	10	5%	1/10W
R173	1-216-001-00	METAL CHIP	10	5%	1/10W
R174	1-216-001-00	METAL CHIP	10	5%	1/10W

BD **CDM**

< VARIABLE RESISTOR >

Ref. No.	Part No.	Description	Remark
RV101	1-238-600-11	RES, ADJ, CARBON 10K	
RV101	1-241-630-11	RES, ADJ, CARBON 10K	
RV102	1-238-600-11	RES, ADJ, CARBON 10K	
RV102	1-241-630-11	RES, ADJ, CARBON 10K	

< SWITCH >

Ref. No.	Part No.	Description	Remark
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	

****

Ref. No.	Part No.	Description	Remark
*	A-4649-352-A	CDM BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-463-A	CDM BOARD, COMPLETE (G)	
*	A-4649-466-A	CDM BOARD, COMPLETE (AEP, UK, IT)	

****

Ref. No.	Part No.	Description	Remark
*	4-942-204-01	PLATE, GROUND	

< CAPACITOR >

Ref. No.	Part No.	Description			
C212	1-164-346-11	CERAMIC CHIP	1uF		16V
C213	1-164-346-11	CERAMIC CHIP	1uF		16V
C214	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C215	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C216	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C217	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C218	1-164-346-11	CERAMIC CHIP	1uF		16V
C219	1-164-346-11	CERAMIC CHIP	1uF		16V
C220	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C221	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C222	1-164-346-11	CERAMIC CHIP	1uF		16V
C223	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C224	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C225	1-164-346-11	CERAMIC CHIP	1uF		16V
C226	1-164-346-11	CERAMIC CHIP	1uF		16V
C227	1-164-346-11	CERAMIC CHIP	1uF		16V
C228	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C229	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C230	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C231	1-164-346-11	CERAMIC CHIP	1uF		16V
C232	1-164-346-11	CERAMIC CHIP	1uF		16V
C233	1-164-346-11	CERAMIC CHIP	1uF		16V
C234	1-164-346-11	CERAMIC CHIP	1uF		16V
C235	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C236	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C237	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C238	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C241	1-164-346-11	CERAMIC CHIP	1uF		16V
C242	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C243	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C244	1-164-346-11	CERAMIC CHIP	1uF		16V
C245	1-164-346-11	CERAMIC CHIP	1uF		16V
C250	1-126-405-11	ELECT CHIP	10uF	20%	50V
C252	1-126-924-11	ELECT	330uF	20%	10V
C253	1-126-923-11	ELECT	220uF	20%	10V

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
* CN202	1-695-629-11	CONNECTOR, FFC/FPC (ZIF) 22P	
CN203	1-580-891-11	SOCKET, CONNECTOR (SMT) 22P	
* CN206	1-568-951-11	PIN, CONNECTOR 2P	
* CN208	1-573-275-11	PIN, CONNECTOR 5P	
CN209	1-506-468-11	PIN, CONNECTOR 3P	
CN210	1-506-468-11	PIN, CONNECTOR 3P	
CN211	1-506-469-11	PIN, CONNECTOR 4P	

< DIODE >

Ref. No.	Part No.	Description	Remark
D205	8-719-990-39	DIODE DCB010	
D206	8-719-210-33	DIODE EC10DS2	
D207	8-719-210-33	DIODE EC10DS2	
D208	8-719-210-33	DIODE EC10DS2	

< FUSE >

Ref. No.	Part No.	Description	Remark
⚠F201	1-532-775-11	FUSE, MICRO (SECONDARY) 125V, 0.8A (EXCEPT AEP, UK, G, IT)	

< IC >

Ref. No.	Part No.	Description	Remark
IC206	8-759-512-81	IC LH5160N-10L	
IC207	8-759-008-79	IC MC14011BF	
IC208	8-759-009-21	IC MC14093BF	
IC209	8-752-337-26	IC CXD2500AQ	
IC210	8-752-337-10	IC CXD2554M	
IC211	8-759-506-63	IC PCM67U	
IC212	8-759-636-55	IC M5218AFP	
IC214	8-759-501-73	IC BA6418N	
IC215	8-759-501-73	IC BA6418N	
IC216	8-759-501-73	IC BA6418N	
IC250	8-759-076-35	IC uPD75516GF-399-3B9	

< IC LINK >

Ref. No.	Part No.	Description	Remark
⚠ICP201	1-532-838-21	LINK, IC 0.3A (AEP, UK, G, IT)	

< JUMPER RESISTOR >

Ref. No.	Part No.	Description			
JR202	1-216-295-00	METAL CHIP	0	5%	1/10W
JR204	1-216-295-00	METAL CHIP	0	5%	1/10W
JR207	1-216-295-00	METAL CHIP	0	5%	1/10W

< COIL >

Ref. No.	Part No.	Description	Remark
L201	1-410-385-11	INDUCTOR CHIP 22uH	
L202	1-410-385-11	INDUCTOR CHIP 22uH	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
L203	1-410-385-11	INDUCTOR CHIP 22uH	
L205	1-410-385-11	INDUCTOR CHIP 22uH	
		< TRANSISTOR >	
Q201	8-729-804-41	TRANSISTOR 2SB1122-S	
Q202	8-729-602-21	TRANSISTOR 2SC4154-F	
		< RESISTOR >	
R202	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R203	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R204	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R205	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R206	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R207	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R208	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R209	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R211	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R212	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R213	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R214	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R215	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R216	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R217	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R218	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R219	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R220	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R221	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R222	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R223	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R224	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R225	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R226	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R227	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R228	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R229	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R230	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R231	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R232	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R233	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R234	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R235	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R236	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R237	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R238	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R239	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R240	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R241	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R242	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R243	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R244	1-216-041-00	METAL CHIP 470 5% 1/10W	
R245	1-216-041-00	METAL CHIP 470 5% 1/10W	
R246	1-216-041-00	METAL CHIP 470 5% 1/10W	
R247	1-216-041-00	METAL CHIP 470 5% 1/10W	
R248	1-216-033-00	METAL CHIP 220 5% 1/10W	
R249	1-216-041-00	METAL CHIP 470 5% 1/10W	
R250	1-216-041-00	METAL CHIP 470 5% 1/10W	
R251	1-216-041-00	METAL CHIP 470 5% 1/10W	
R252	1-216-041-00	METAL CHIP 470 5% 1/10W	
R253	1-216-064-00	METAL CHIP 4.3K 5% 1/10W	
R254	1-216-064-00	METAL CHIP 4.3K 5% 1/10W	
R255	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R256	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R257	1-216-013-00	METAL CHIP 33 5% 1/10W	
R258	1-216-033-00	METAL CHIP 220 5% 1/10W	
R259	1-216-033-00	METAL CHIP 220 5% 1/10W	
R260	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R261	1-216-073-00	METAL CHIP 10K 5% 1/10W	
⚠R262	1-249-397-11	CARBON 22 5% 1/4W	F
⚠R263	1-249-397-11	CARBON 22 5% 1/4W	F
R264	1-216-043-00	METAL CHIP 560 5% 1/10W	
R265	1-216-043-00	METAL CHIP 560 5% 1/10W	
R266	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R267	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R268	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R269	1-216-025-00	METAL CHIP 100 5% 1/10W	
R270	1-216-025-00	METAL CHIP 100 5% 1/10W	
R271	1-216-025-00	METAL CHIP 100 5% 1/10W	
R272	1-216-025-00	METAL CHIP 100 5% 1/10W	
R273	1-216-025-00	METAL CHIP 100 5% 1/10W	
		< TEST PIN >	
* TP201	1-695-630-11	PIN, CONNECTOR 6P	
		< VIBRATOR >	
X201	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	
X202	1-567-908-11	VIBRATOR, CRYSTAL (16MHz)	

****

*	1-645-607-11	CDM MOTOR BOARD ***************	
		< CAPACITOR >	
C101	1-164-159-11	CERAMIC 0.1uF 50V	
C102	1-164-159-11	CERAMIC 0.1uF 50V	
C103	1-164-159-11	CERAMIC 0.1uF 50V	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CDM MOTOR

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
* CN105	1-568-934-11	PIN, CONNECTOR 7P	
* CN106	1-568-954-11	PIN, CONNECTOR 5P	
		< IC >	
IC401	8-759-071-52	IC ON1023-S	
IC601	8-759-071-52	IC ON1023-S	
		< RESISTOR >	
⚠R401	1-249-407-11	CARBON 150 5%	1/4W F
R402	1-249-429-11	CARBON 10K 5%	1/4W
⚠R601	1-249-407-11	CARBON 150 5%	1/4W F
R602	1-249-429-11	CARBON 10K 5%	1/4W
		< SWITCH >	
S101	1-571-300-21	SWITCH, ROTARY (BU UP/DOWN)	
S103	1-692-080-11	SWITCH, PUSH (1 KEY) (TRAY OUT)	
S104	1-692-080-11	SWITCH, PUSH (1 KEY) (TRAY IN)	

****

PANEL

Ref. No.	Part No.	Description	Remark
*	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-462-A	PANEL BOARD, COMPLETE (G)	
*	A-4649-465-A	PANEL BOARD, COMPLETE (AEP, UK, IT)	
		*********************	
*	4-954-701-01	HOLDER (FL TUBE)	
		< CAPACITOR >	
C301	1-164-346-11	CERAMIC CHIP 1uF	16V
C302	1-164-346-11	CERAMIC CHIP 1uF	16V
C303	1-164-161-11	CERAMIC CHIP 0.0022uF 10%	100V
C304	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C305	1-164-346-11	CERAMIC CHIP 1uF	16V
C306	1-164-346-11	CERAMIC CHIP 1uF	16V
C307	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C308	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C309	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C310	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C311	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C312	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C313	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C314	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C315	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C316	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C317	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C318	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C319	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C320	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C321	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C322	1-163-035-00	CERAMIC CHIP 0.047uF 10%	25V
C323	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C324	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
C325	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
C326	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C327	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
		< CONNECTOR >	
CN301	1-580-874-11	SOCKET, CONNECTOR (SMT) 22P	
		< DIODE >	
D301	8-719-990-39	DIODE DCB010	
D302	8-719-027-34	DIODE LN1361C (DISC 1)	
D303	8-719-027-34	DIODE LN1361C (DISC 1)	
D304	8-719-027-34	DIODE LN1361C (DISC 1)	
D305	8-719-027-34	DIODE LN1361C (DISC 2)	
D306	8-719-027-34	DIODE LN1361C (DISC 2)	
D307	8-719-027-34	DIODE LN1361C (DISC 2)	
D308	8-719-027-34	DIODE LN1361C (DISC 3)	
D309	8-719-027-34	DIODE LN1361C (DISC 3)	
D310	8-719-027-34	DIODE LN1361C (DISC 3)	
D311	8-719-027-34	DIODE LN1361C (DISC 4)	
D312	8-719-027-34	DIODE LN1361C (DISC 4)	
D313	8-719-027-34	DIODE LN1361C (DISC 4)	
D314	8-719-027-34	DIODE LN1361C (DISC 5)	
D315	8-719-027-34	DIODE LN1361C (DISC 5)	
D316	8-719-027-34	DIODE LN1361C (DISC 5)	
D317	8-719-023-03	DIODE LN1461C (DISC 1)	
D318	8-719-023-03	DIODE LN1461C (DISC 1)	
D319	8-719-023-03	DIODE LN1461C (DISC 2)	
D320	8-719-023-03	DIODE LN1461C (DISC 2)	
D321	8-719-023-03	DIODE LN1461C (DISC 3)	
D322	8-719-023-03	DIODE LN1461C (DISC 3)	
D323	8-719-023-03	DIODE LN1461C (DISC 4)	
D324	8-719-023-03	DIODE LN1461C (DISC 4)	
D325	8-719-023-03	DIODE LN1461C (DISC 5)	
D326	8-719-023-03	DIODE LN1461C (DISC 5)	
D327	8-719-029-95	DIODE TLN117	
		< FLUORESCENT INDICATOR >	
FL301	1-519-738-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC301	8-759-077-15	IC uPD75518GF-059-3B9	
IC302	8-759-077-16	IC M66004M4FP	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

PANEL

Ref. No.	Part No.	Description	Remark
		< COIL >	
L301	1-410-385-11	INDUCTOR CHIP 22uH	
L302	1-410-385-11	INDUCTOR CHIP 22uH	
		< TRANSISTOR >	
Q301	8-729-602-21	TRANSISTOR 2SC4154-F	
Q302	8-729-602-36	TRANSISTOR 2SA1602	
Q303	8-729-804-41	TRANSISTOR 2SB1122-S	
Q304	8-729-018-23	TRANSISTOR TPS626-F	
Q306	8-729-602-21	TRANSISTOR 2SC4154-F	
Q307	8-729-602-21	TRANSISTOR 2SC4154-F	
Q308	8-729-602-21	TRANSISTOR 2SC4154-F	
Q309	8-729-602-21	TRANSISTOR 2SC4154-F	
Q311	8-729-602-21	TRANSISTOR 2SC4154-F	
Q312	8-729-602-21	TRANSISTOR 2SC4154-F	
Q313	8-729-602-21	TRANSISTOR 2SC4154-F	
		< RESISTOR >	
R301	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R302	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R303	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R304	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R305	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R306	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R308	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R309	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R310	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R311	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R312	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R313	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R314	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R315	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R316	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R317	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R318	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R319	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R320	1-216-017-00	METAL CHIP 47 5% 1/10W	
R321	1-216-017-00	METAL CHIP 47 5% 1/10W	
R322	1-216-017-00	METAL CHIP 47 5% 1/10W	
R323	1-216-017-00	METAL CHIP 47 5% 1/10W	
R324	1-216-017-00	METAL CHIP 47 5% 1/10W	
R325	1-216-019-00	METAL CHIP 56 5% 1/10W	
R326	1-216-019-00	METAL CHIP 56 5% 1/10W	
R327	1-216-019-00	METAL CHIP 56 5% 1/10W	
R328	1-216-019-00	METAL CHIP 56 5% 1/10W	
R329	1-216-019-00	METAL CHIP 56 5% 1/10W	
R330	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R331	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R332	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R333	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R335	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R336	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R337	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R340	1-216-027-00	METAL CHIP 120 5% 1/10W	
R341	1-216-027-00	METAL CHIP 120 5% 1/10W	
R342	1-216-027-00	METAL CHIP 120 5% 1/10W	
R343	1-216-027-00	METAL CHIP 120 5% 1/10W	
R344	1-216-027-00	METAL CHIP 120 5% 1/10W	
R349	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R350	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R351	1-216-041-00	METAL CHIP 470 5% 1/10W	
R352	1-216-041-00	METAL CHIP 470 5% 1/10W	
R353	1-216-041-00	METAL CHIP 470 5% 1/10W	
R354	1-216-041-00	METAL CHIP 470 5% 1/10W	
R355	1-216-045-00	METAL CHIP 680 5% 1/10W	
R356	1-216-045-00	METAL CHIP 680 5% 1/10W	
R357	1-216-045-00	METAL CHIP 680 5% 1/10W	
R358	1-216-045-00	METAL CHIP 680 5% 1/10W	
R359	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R360	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R361	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R362	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R363	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R364	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R365	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R366	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R367	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R368	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R369	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R370	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R371	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R372	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R373	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R374	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R375	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R376	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R377	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R378	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R385	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R386	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R387	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R388	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R389	1-216-073-00	METAL CHIP 10K 5% 1/10W	

PANEL TRANSFORMER

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S301	1-692-296-11	SWITCH, KEY BOARD (▶▶ ▷▷|)	
S302	1-692-296-11	SWITCH, KEY BOARD (|◁◁ ◀◀)	
S303	1-692-296-11	SWITCH, KEY BOARD (■)	
S304	1-692-296-11	SWITCH, KEY BOARD (▷)	
S305	1-692-296-11	SWITCH, KEY BOARD (DISC 1)	
S306	1-692-296-11	SWITCH, KEY BOARD (⏏ DISC 1)	
S308	1-692-296-11	SWITCH, KEY BOARD (❚❚)	
S309	1-692-296-11	SWITCH, KEY BOARD (DISC 2)	
S310	1-692-296-11	SWITCH, KEY BOARD (⏏ DISC 2)	
S312	1-692-296-11	SWITCH, KEY BOARD (CONTINUE)	
S313	1-692-296-11	SWITCH, KEY BOARD (DISC 3)	
S314	1-692-296-11	SWITCH, KEY BOARD (⏏ DISC 3)	
S316	1-692-296-11	SWITCH, KEY BOARD (SHUFFLE)	
S317	1-692-296-11	SWITCH, KEY BOARD (DISC 4)	
S318	1-692-296-11	SWITCH, KEY BOARD (⏏ DISC 4)	
S320	1-692-296-11	SWITCH, KEY BOARD (PROGRAM)	
S321	1-692-296-11	SWITCH, KEY BOARD (DISC 5)	
S322	1-692-296-11	SWITCH, KEY BOARD (⏏ DISC 5)	
S324	1-692-296-11	SWITCH, KEY BOARD (REPEAT)	
S325	1-692-296-11	SWITCH, KEY BOARD (CHARATER ▷)	
S326	1-692-296-11	SWITCH, KEY BOARD (CHARATER ◁)	
S328	1-692-296-11	SWITCH, KEY BOARD (CURSOR)	
S329	1-692-296-11	SWITCH, KEY BOARD (MEMO INPUT)	
S330	1-692-296-11	SWITCH, KEY BOARD (ERASE)	
S331	1-692-296-11	SWITCH, KEY BOARD (TIME/MEMO)	
S332	1-692-296-11	SWITCH, KEY BOARD (SOUND FIELD FILE)	
		< VIBRATOR >	
X301	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	

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*	A-4649-456-A	TRANSFORMER BOARD, COMPLETE	(EXCEPT AEP, UK, G, IT)
*	A-4649-461-A	TRANSFORMER BOARD, COMPLETE	(G)
*	A-4649-464-A	TRANSFORMER BOARD, COMPLETE	(AEP, UK, IT)

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*	3-309-144-21	HEAT SINK			
	7-682-547-04	SCREW +BVTT	3X6	(S)	
		< CAPACITOR >			
C200	1-126-939-11	ELECT	10000uF	20%	16V
C202	1-164-159-11	CERAMIC	0.1uF		50V
C203	1-164-159-11	CERAMIC	0.1uF		50V
C205	1-124-443-00	ELECT	100uF	20%	10V
C206	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C207	1-164-159-11	CERAMIC	0.1uF		50V
C208	1-124-443-00	ELECT	100uF	20%	10V

Ref. No.	Part No.	Description			Remark
C209	1-164-159-11	CERAMIC	0.1uF		50V
C210	1-164-159-11	CERAMIC	0.1uF		50V
C211	1-124-443-00	ELECT	100uF	20%	10V
C246	1-124-572-11	ELECT	100uF	20%	63V
C247	1-124-907-11	ELECT	10uF	20%	50V
C248	1-161-329-00	CERAMIC	0.0068uF	20%	16V
C249	1-161-329-00	CERAMIC	0.0068uF	20%	16V
C251	1-124-907-11	ELECT	10uF	20%	50V
C254	1-124-902-00	ELECT	0.47uF	20%	50V
C255	1-124-902-00	ELECT	0.47uF	20%	50V
C256	1-124-907-11	ELECT	10uF	20%	50V
C257	1-124-907-11	ELECT	10uF	20%	50V
C258	1-162-282-31	CERAMIC	100PF	10%	50V
		< CONNECTOR >			
* CN201	1-569-624-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL 2)			
* CN213	1-564-499-11	PIN, CONNECTOR 6P			
* CN216	1-562-327-00	SOCKET, CONNECTOR 3P			
		< DIODE >			
D201	8-719-210-21	DIODE	11EQS04		
D202	8-719-210-21	DIODE	11EQS04		
D203	8-719-200-82	DIODE	11ES2		
D204	8-719-014-86	DIODE	UZP-6.8BB		
D206	8-719-987-63	DIODE	1N4148M		
		< IC >			
IC201	8-759-604-86	IC	M5F7807L		
IC202	8-759-604-30	IC	M5F7808L		
IC203	8-759-821-93	IC	LA5601		
IC204	8-759-821-93	IC	LA5601		
IC213	8-759-633-42	IC	M5293L		
		< RESISTOR >			
⚠R201	1-249-393-11	CARBON	10	5%	1/4W F
⚠R202	1-249-405-11	CARBON	100	5%	1/4W F
		< TRANSFORMER >			
⚠T201	1-450-984-11	TRANSFORMER, POWER			

****

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *************	
11	1-696-633-11	WIRE (FLAT TYPE)	
78	1-452-676-11	MAGNET	
86	1-696-634-11	WIRE (FLAT TYPE)	
⚠155	8-848-144-11	DEVICE, OPTICAL KSS-240A	
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
M101	A-4660-232-A	MOTOR (CDM) ASSY	
M102	A-4460-232-A	MOTOR (CDM) ASSY	
M103	A-4460-232-A	MOTOR (CDM) ASSY	
S102	1-466-819-11	ENCORDER, ROTARY	

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****

HARDWARE LIST

****

Ref. No.	Part No.	Description
#1	7-682-546-04	SCREW +BVTT 3X5 (S)
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#3	7-624-106-04	STOP RING 3.0, TYPE -E
#4	7-682-546-09	SCREW +PTT 3X5 (S)
#5	7-685-645-79	SCREW +BTP 3X6 TYPE2 N-S
#6	7-621-775-00	SCREW +B 2.6X3
#7	7-621-255-35	SCREW +BVTT 2X5 (S)
#8	7-621-773-95	SCREW +BVTT 2.6X6 (S)
#9	7-685-531-14	SCREW +BTP 2.6X4 TYPE2 N-S
#10	7-621-770-XX	SCREW +PTT 2.6X8 (S)
#11	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S
#12	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S
#13	7-621-255-15	SCREW +P 2X3
#14	7-682-547-09	SCREW +BVTT 3X6 (S)
#15	7-682-547-04	SCREW +BVTT 3X6 (S)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CDP-H3750

SONY
SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
21	M102	A-4460-232-A	MOTOR (CDM) ASSY	A-4660-232-A ☛	MOTOR (CDM) ASSY
	M103	A-4460-232-A	MOTOR (CDM) ASSY	A-4660-232-A ☛	MOTOR (CDM) ASSY

English
93C04100-1

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Audio Group

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CDP-H3750

SONY®

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

SUPPLEMENT-1

File this supplement-1 with the Service Manual.

Subject :
1. TEST MODE
2. BLOCK DIAGRAM
3. IC PIN DESCRIPTION

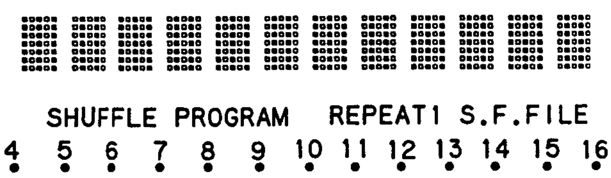
TEST MODE

1. Press the three keys: DISC1, DISC5 ⏏ and ■ simultaneously to enter the Test Mode.

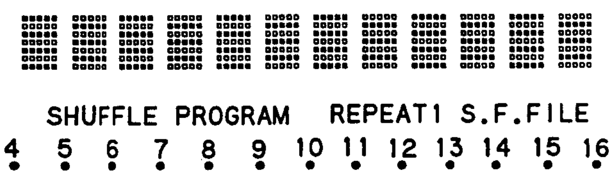
(1) FL Tube All Lighting
This mode is entered just after power is turned on.

(2) FL Tube Segment Check
This mode is entered when DISC1 ⏏ key is pressed in mode (1).
Make sure that the mode changes from ∗ 1 to ∗ 2 to ∗ 3 and then to ∗ 1 and so on in turn each time DISC1 ⏏ key is pressed.

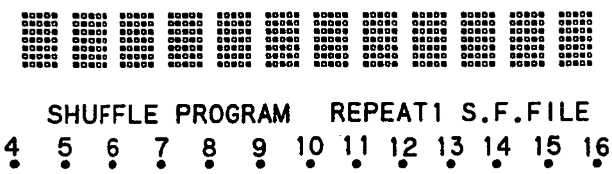
∗ 1


SHUFFLE PROGRAM REPEAT1 S.F.FILE
4 5 6 7 8 9 10 11 12 13 14 15 16

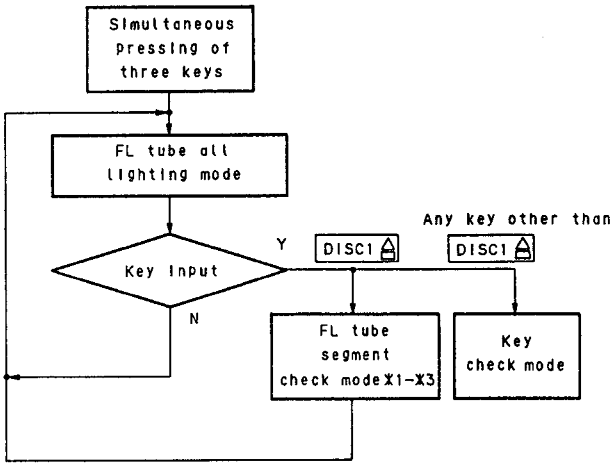
∗ 2


SHUFFLE PROGRAM REPEAT1 S.F.FILE
4 5 6 7 8 9 10 11 12 13 14 15 16

∗ 3


SHUFFLE PROGRAM REPEAT1 S.F.FILE
4 5 6 7 8 9 10 11 12 13 14 15 16

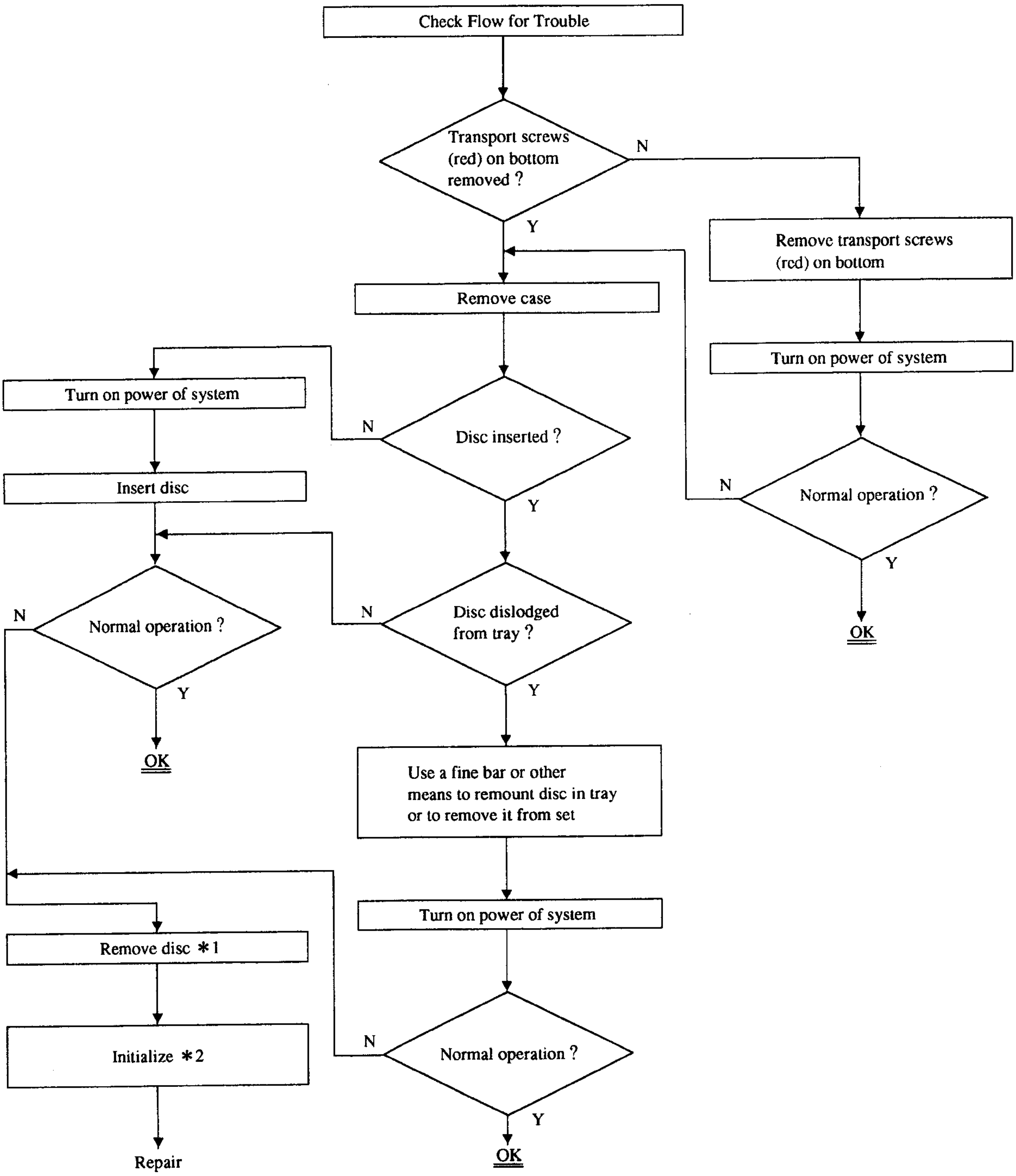
(3) Key Check
This mode is entered and "1" is displayed when and key other than DISC1 ⏏ is pressed in mode (1). The number displayed is incremented each time any new key is pressed. Make sure that "7" is displayed when all the different keys have been pressed.
Note that once a key has been pressed, even if that key is pressed again, it is not be counted.
∗ To exit mode (2) and mode (3), press the three keys: DISC1, DISC5 ⏏ and ■ simultaneously.

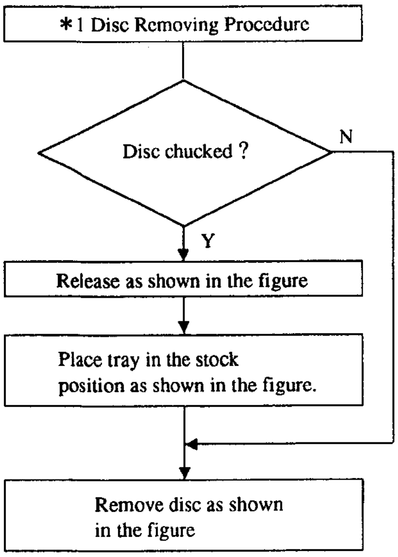

Simultaneous pressing of three keys
FL tube all lighting mode
Key input
Y
N
DISC1 ⏏
Any key other than
DISC1 ⏏
FL tube segment check mode ∗1–∗3
Key check mode

2. Test Mode for CD System Controller (IC250)

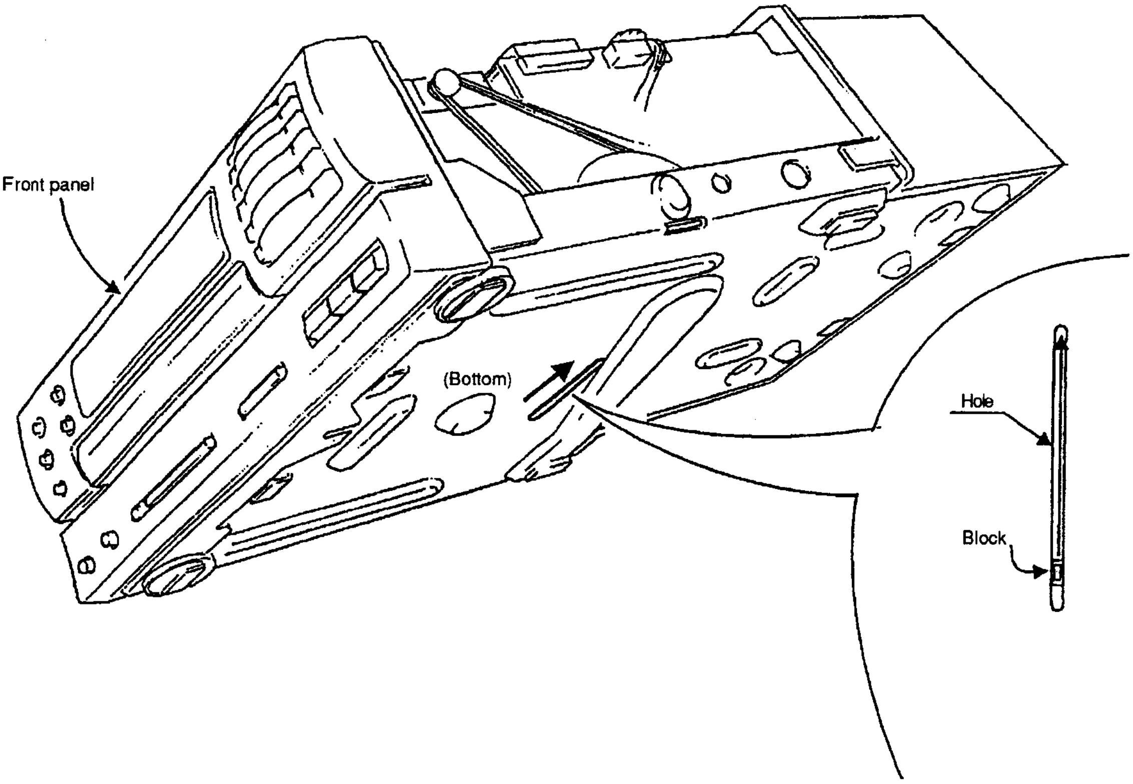
(1) ADJUST Mode
In this mode, the system looks like performing normal operation except that:

- When IC250 pin (53) (ADJ) is set "L" after power is turned on:
  ① The system will not monitor GFS during PLAY, PAUSE and SEARCH. It will not STOP even if GFS remains "L" (NG).
  ② No high speed feed is performed during SEARCH.
  ③ Focus gain will be returned to normal during PLAY. (Usually, when focus is locked, the gain is decreased to redure noise.)
- When IC250 pin (79) (AFADJ) is set "L" after power is turned on:
  ① CLV mode during PLAY will be CLV-S (rough servo) independent of the state of pin ⑲ (ADJ) as the CLV-S lock function.

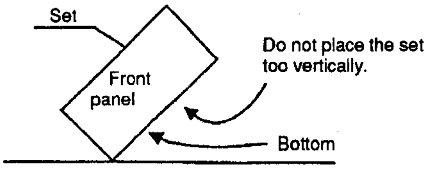

Check Flow for Trouble
Transport screws (red) on bottom removed ?
N
Y
Remove transport screws (red) on bottom
Turn on power of system
Normal operation ?
N
Y
OK
Remove case
Disc inserted ?
N
Y
Turn on power of system
Insert disc
Normal operation ?
N
Y
OK
Disc dislodged from tray ?
N
Y
Use a fine bar or other means to remount disc in tray or to remove it from set
Turn on power of system
Normal operation ?
N
Y
OK
Remove disc ＊1
Initialize ＊2
Repair

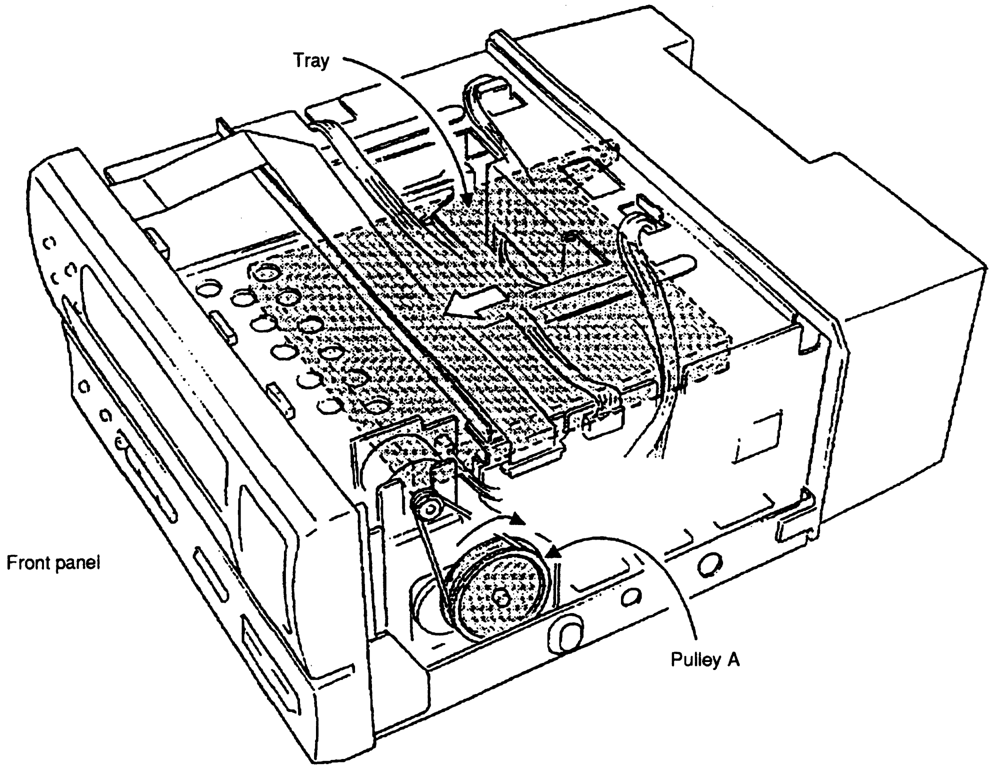

*1 Disc Removing Procedure
Disc chucked ?
N
Y
Release as shown in the figure
Place tray in the stock position as shown in the figure.
Remove disc as shown in the figure

Disc Removing Procedure

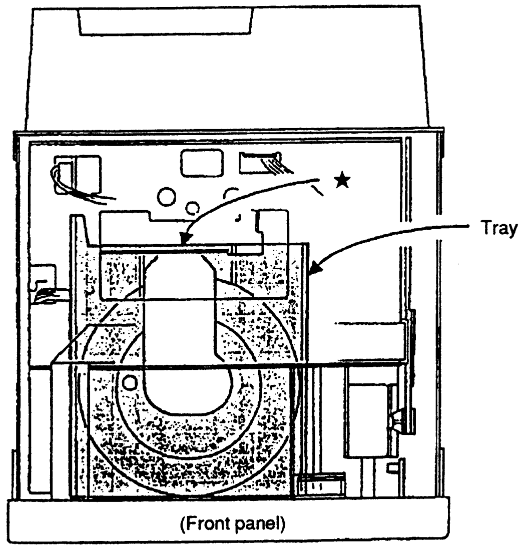

Front panel
(Bottom)
Hole
Block

1) Insert a fine bar into the hole and move the block in the arrow direction.
(If disc is chucked, to prevent fall of disc, place the set as illustrated below.)

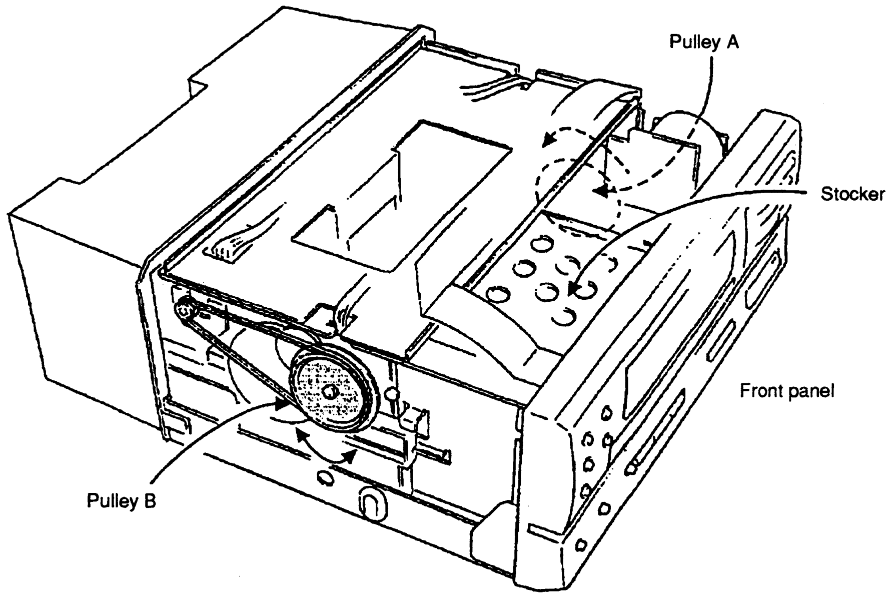

Set
Front panel
Do not place the set too vertically.
Bottom


Tray
Front panel
Pulley A

2) Rotate pulley A clockwise (↷). While observing the disc tray moves in the arrow (⇐) direction, move the tray until its rear is aligned with others (★ marked portion). (See Fig. A)

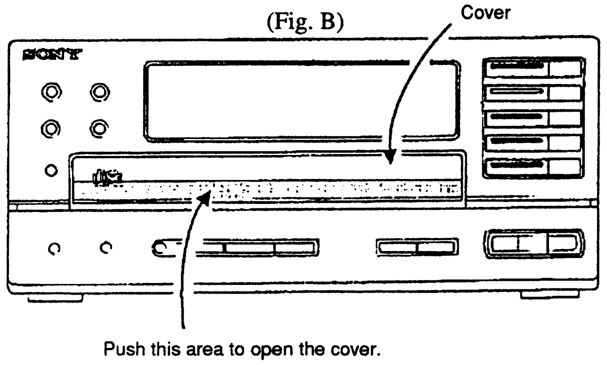

★
Tray
(Front panel)

(Fig. A)


Pulley A
Stocker
Front panel
Pulley B

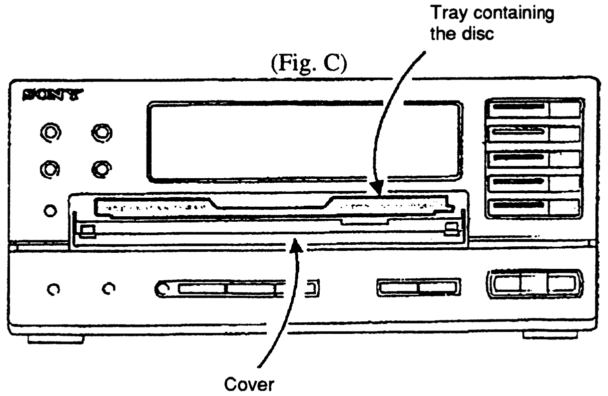
3) Rotating pulley B will move the stocker where disc trays are stocked up and down. Open the cover on the front panel (Fig. B) and adjust so that the tray containing the disc is at the cover position (Fig. C).

(Fig. B)


Cover
SONY
Push this area to open the cover.

⇨

(Fig. C)


Tray containing the disc
SONY
Cover

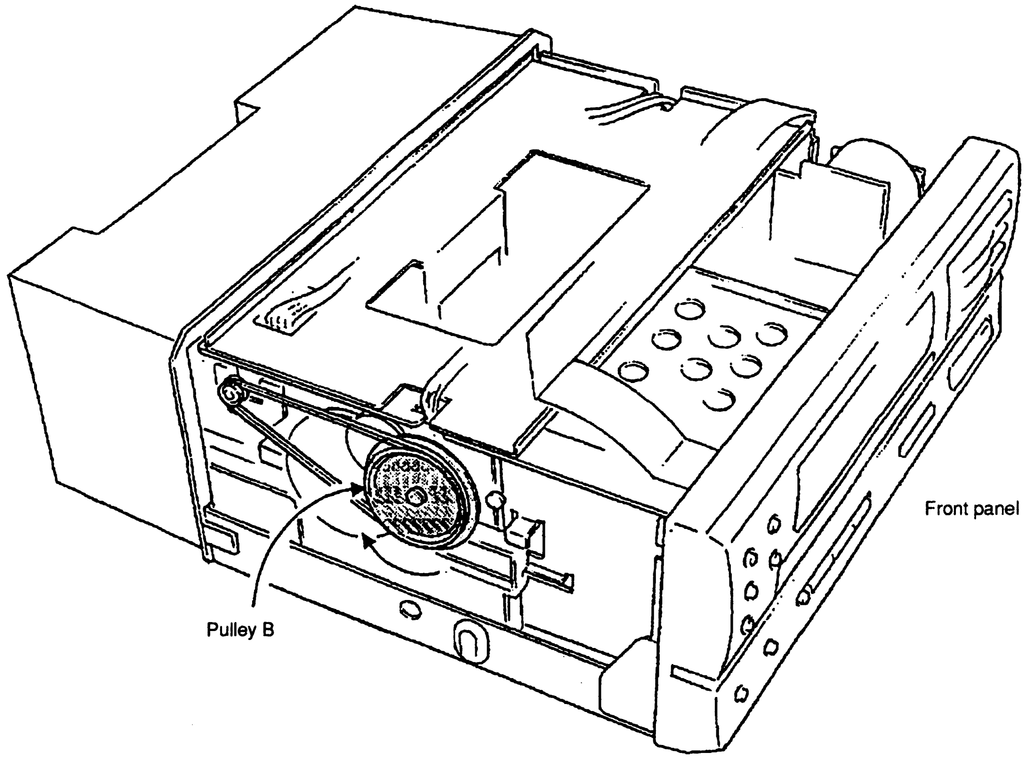
4) Rotating pulley A counterclockwise (↶) will eject the tray containing disc. Remove the disc, then rotate pulley A clockwise to return the tray to the position as shown in Fig. A.

- If some trays contain disc, repeat Items 3) and 4).

∗ 2 Initializing Procedure

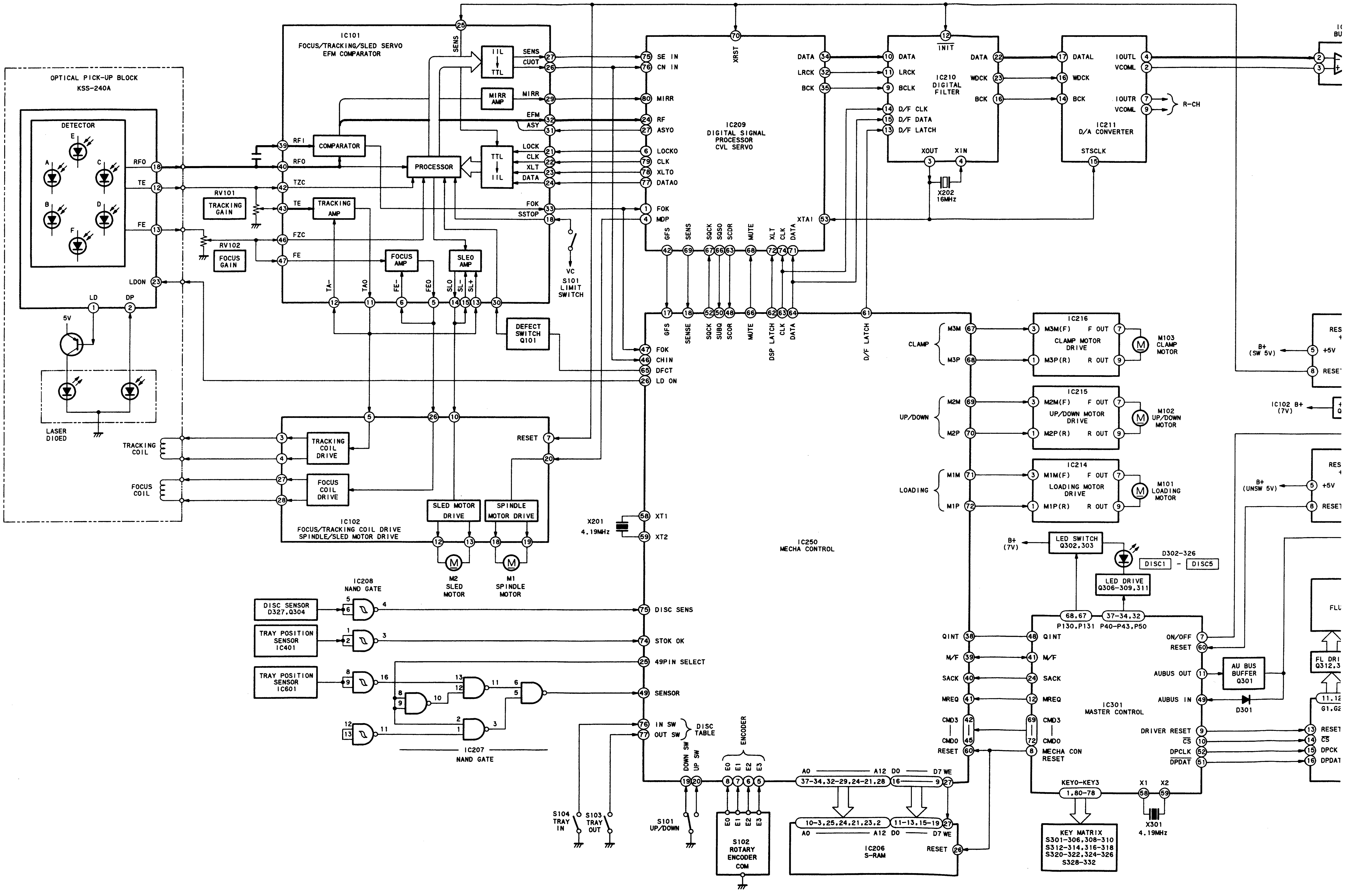
1) If mechanism is operated when power of system is turned on :
   Make sure that all disc are removed. Open DISC No. 1.
   ↓
   Turn off power of system.
   ↓
   "OFF" characters flash on the CD display.
   ↓
2) If mechanism is operated when power of system is turned on :
   Move disc tray as shown in the figure.

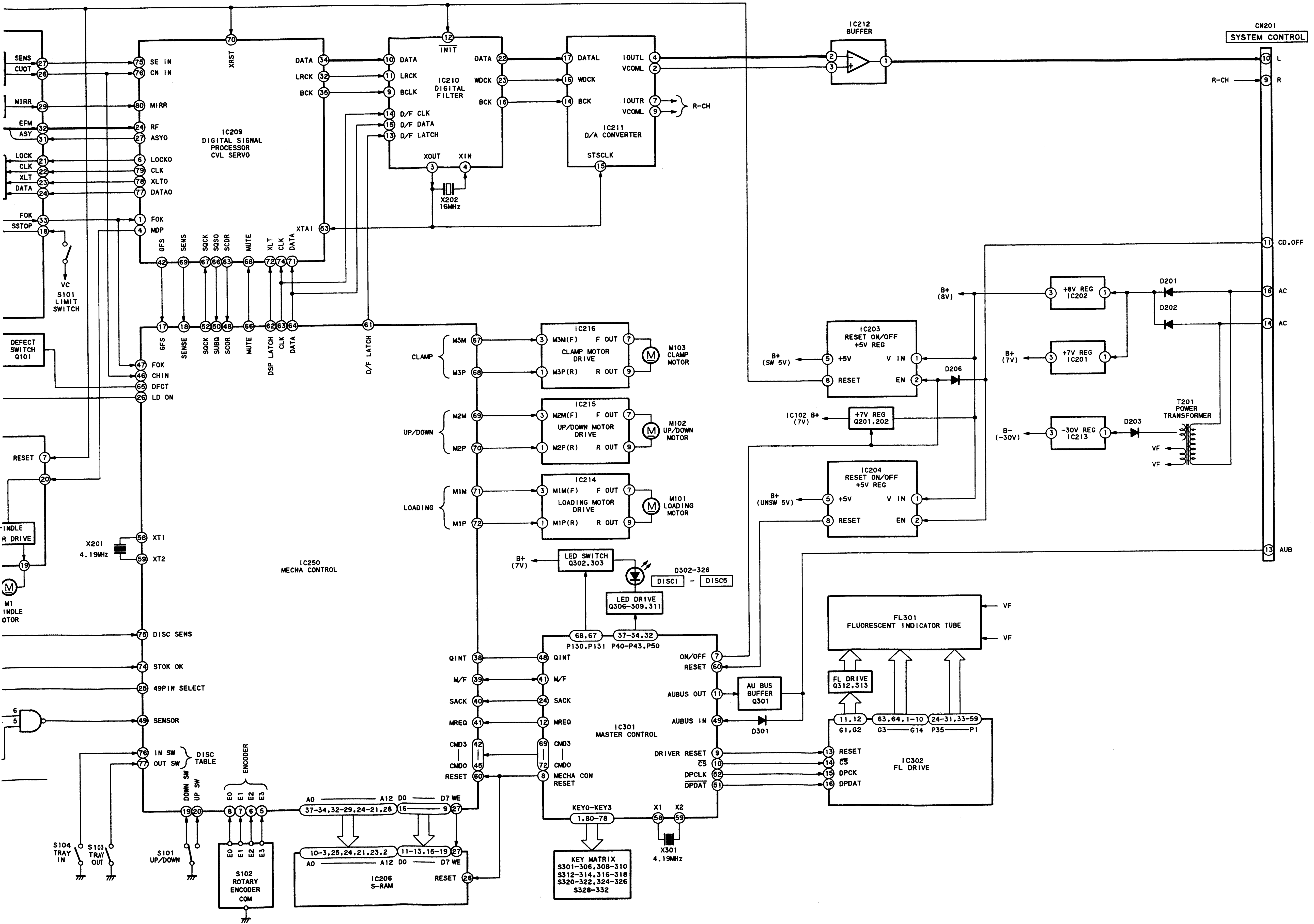
Initializing Procedure



∗ Make sure that all the trays are arranged to the position shown in Fig. A, then rotate pulley B in the arrow direction until it stops.

BLOCK DIAGRAM

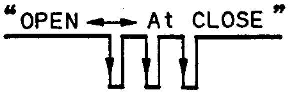

OPTICAL PICK-UP BLOCK
KSS-240A
DETECTOR
E
A
C
B
D
F
RFO
TE
FE
LDON
LD
DP
5V
LASER DIOED
TRACKING COIL
FOCUS COIL
IC101
FOCUS/TRACKING/SLED SERVO
EFM COMPARATOR
SENS
IIL → TTL
SENS
CUOT
MIRR AMP
MIRR
EFM
ASY
COMPARATOR
RFI
RFO
TZC
PROCESSOR
TTL → IIL
LOCK
CLK
XLT
DATA
FOK
SSTOP
RV101
TRACKING GAIN
TE
TRACKING AMP
FZC
RV102
FOCUS GAIN
FE
FOCUS AMP
SLED AMP
TA-
TAO
FE-
FEO
SLO
SL-
SL+
DEFECT SWITCH
Q101
VC
S101
LIMIT SWITCH
TRACKING COIL DRIVE
FOCUS COIL DRIVE
RESET
SLED MOTOR DRIVE
SPINDLE MOTOR DRIVE
IC102
FOCUS/TRACKING COIL DRIVE
SPINDLE/SLED MOTOR DRIVE
M2
SLED MOTOR
M1
SPINDLE MOTOR
SE IN
CN IN
MIRR
RF
ASYO
LOCKO
CLK
XLTO
DATAO
FOK
MDP
XRST
IC209
DIGITAL SIGNAL PROCESSOR
CVL SERVO
DATA
LRCK
BCK
XTAI
GFS
SENS
SQCK
SQSO
SCOR
MUTE
XLT
CLK
DATA
IC210
DIGITAL FILTER
DATA
LRCK
BCLK
INIT
D/F CLK
D/F DATA
D/F LATCH
XOUT
XIN
X202
16MHz
DATA
WDCK
BCK
IC211
D/A CONVERTER
DATAL
WDCK
BCK
IOUTL
VCOML
IOUTR
VCOML
R-CH
STSCLK
GFS
SENSE
SQCK
SUBQ
SCOR
MUTE
DSP LATCH
CLK
DATA
D/F LATCH
FOK
CHIN
DFCT
LD ON
X201
4.19MHz
XT1
XT2
IC250
MECHA CONTROL
CLAMP
M3M
M3P
IC216
M3M(F)
F OUT
CLAMP MOTOR DRIVE
M3P(R)
R OUT
M103
CLAMP MOTOR
UP/DOWN
M2M
M2P
IC215
M2M(F)
UP/DOWN MOTOR DRIVE
M2P(R)
M102
UP/DOWN MOTOR
LOADING
M1M
M1P
IC214
M1M(F)
LOADING MOTOR DRIVE
M1P(R)
M101
LOADING MOTOR
B+ (SW 5V)
+5V
IC102 B+ (7V)
B+ (UNSW 5V)
B+ (7V)
LED SWITCH
Q302,303
D302-326
DISC1 - DISC5
LED DRIVE
Q306-309,311
IC208
NAND GATE
DISC SENSOR
D327,Q304
TRAY POSITION SENSOR
IC401
TRAY POSITION SENSOR
IC601
IC207
NAND GATE
DISC SENS
STOK OK
49PIN SELECT
SENSOR
IN SW
OUT SW
DISC TABLE
S104
TRAY IN
S103
TRAY OUT
S101
UP/DOWN
DOWN SW
UP SW
ENCODER
E0 E1 E2 E3
S102
ROTARY ENCODER
COM
A0 — A12 D0 — D7 WE
37-34,32-29,24-21,28
16— 9
10-3,25,24,21,23,2
11-13,15-19
IC206
S-RAM
RESET
QINT
M/F
SACK
MREQ
CMD3
CMD0
RESET
68,67
37-34,32
P130,P131 P40-P43,P50
QINT
M/F
SACK
MREQ
CMD3
CMD0
MECHA CON RESET
IC301
MASTER CONTROL
ON/OFF
RESET
AUBUS OUT
AUBUS IN
AU BUS BUFFER
Q301
D301
DRIVER RESET
CS
DPCLK
DPDAT
KEY0-KEY3
1,80-78
KEY MATRIX
S301-306,308-310
S312-314,316-318
S320-322,324-326
S328-332
X1
X2
X301
4.19MHz
RESET
CS
DPCK
DPDAT
FL DRI
Q312,3
G1,G2


IC209
DIGITAL SIGNAL PROCESSOR CVL SERVO
SENS
CUOT
MIRR
EFM
ASY
LOCK
CLK
XLT
DATA
FOK
SSTOP
SE IN
CN IN
MIRR
RF
ASYO
LOCKO
CLK
XLTO
DATAO
FOK
MDP
XRST
DATA
LRCK
BCK
XTAI
GFS
SENS
SQCK
SQSO
SCOR
MUTE
XLT
CLK
DATA
VC
S101 LIMIT SWITCH
IC210
DIGITAL FILTER
INIT
DATA
LRCK
BCLK
D/F CLK
D/F DATA
D/F LATCH
DATA
WDCK
BCK
XOUT
XIN
X202 16MHz
IC211
D/A CONVERTER
DATAL
WDCK
BCK
IOUTL
VCOML
IOUTR
VCOML
R-CH
STSCLK
IC212
BUFFER
CN201
SYSTEM CONTROL
L
R
R-CH
CD.OFF
AC
AC
AUB
DEFECT SWITCH Q101
GFS
SENSE
SQCK
SUBQ
SCOR
MUTE
DSP LATCH
CLK
DATA
D/F LATCH
FOK
CHIN
DFCT
LD ON
RESET
-INDLE
R DRIVE
M1
INDLE
OTOR
X201
4.19MHz
XT1
XT2
IC250
MECHA CONTROL
DISC SENS
STOK OK
49PIN SELECT
SENSOR
IN SW
OUT SW
DISC TABLE
CLAMP
M3M
M3P
IC216
M3M(F)
F OUT
CLAMP MOTOR DRIVE
M3P(R)
R OUT
M103 CLAMP MOTOR
UP/DOWN
M2M
M2P
IC215
M2M(F)
F OUT
UP/DOWN MOTOR DRIVE
M2P(R)
R OUT
M102 UP/DOWN MOTOR
LOADING
M1M
M1P
IC214
M1M(F)
F OUT
LOADING MOTOR DRIVE
M1P(R)
R OUT
M101 LOADING MOTOR
B+ (7V)
LED SWITCH Q302,303
D302-326
DISC1 - DISC5
LED DRIVE Q306-309,311
68,67
37-34,32
P130,P131
P40-P43,P50
IC301
MASTER CONTROL
QINT
M/F
SACK
MREQ
CMD3
CMD0
RESET
QINT
M/F
SACK
MREQ
CMD3
CMD0
MECHA CON RESET
ON/OFF
RESET
AUBUS OUT
AUBUS IN
DRIVER RESET
CS
DPCLK
DPDAT
AU BUS BUFFER Q301
D301
KEY0-KEY3
1,80-78
X1
X2
X301 4.19MHz
KEY MATRIX
S301-306,308-310
S312-314,316-318
S320-322,324-326
S328-332
S104 TRAY IN
S103 TRAY OUT
S101 UP/DOWN
DOWN SW
UP SW
ENCODER
E0
E1
E2
E3
S102 ROTARY ENCODER
COM
A0
A12
D0
D7
WE
37-34,32-29,24-21,28
16
9
10-3,25,24,21,23,2
11-13,15-19
IC206
S-RAM
RESET
IC203
RESET ON/OFF +5V REG
B+ (SW 5V)
+5V
V IN
RESET
EN
D206
IC102 B+ (7V)
+7V REG Q201,202
IC204
RESET ON/OFF +5V REG
B+ (UNSW 5V)
+5V
V IN
RESET
EN
B+ (8V)
+8V REG IC202
B+ (7V)
+7V REG IC201
B- (-30V)
-30V REG IC213
D201
D202
D203
T201
POWER TRANSFORMER
VF
VF
FL301
FLUORESCENT INDICATOR TUBE
VF
VF
FL DRIVE Q312,313
11,12
63,64,1-10
24-31,33-59
G1,G2
G3 G14
P35 P1
IC302
FL DRIVE
RESET
CS
DPCK
DPDAT

IC PIN DESCRIPTION

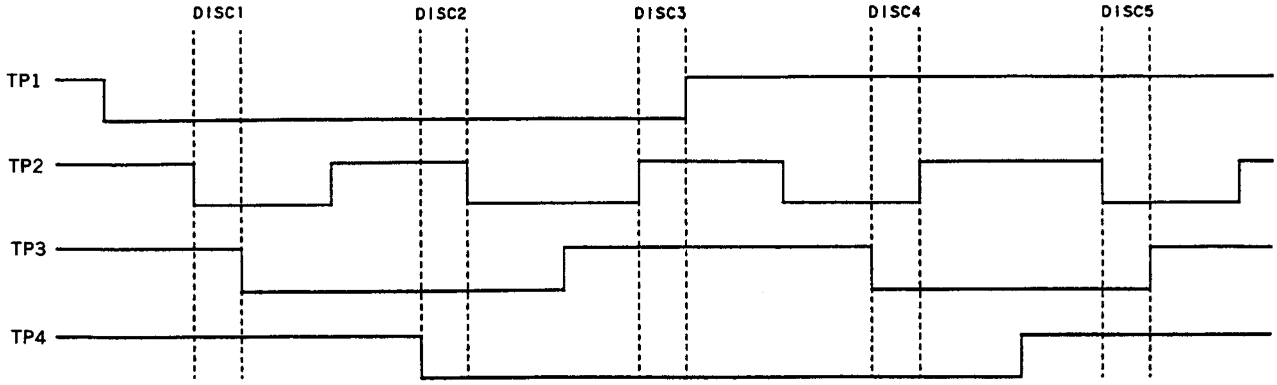
• IC250 μPD75516GF-399-3B9 Mechanism Controller Microprocessor

For operations with the CD unit's IC101 (RF signal processing and servo), IC209 (DSP and digital filter) loading control, IC206 (SRAM), and data exchange with IC301 (master controller).

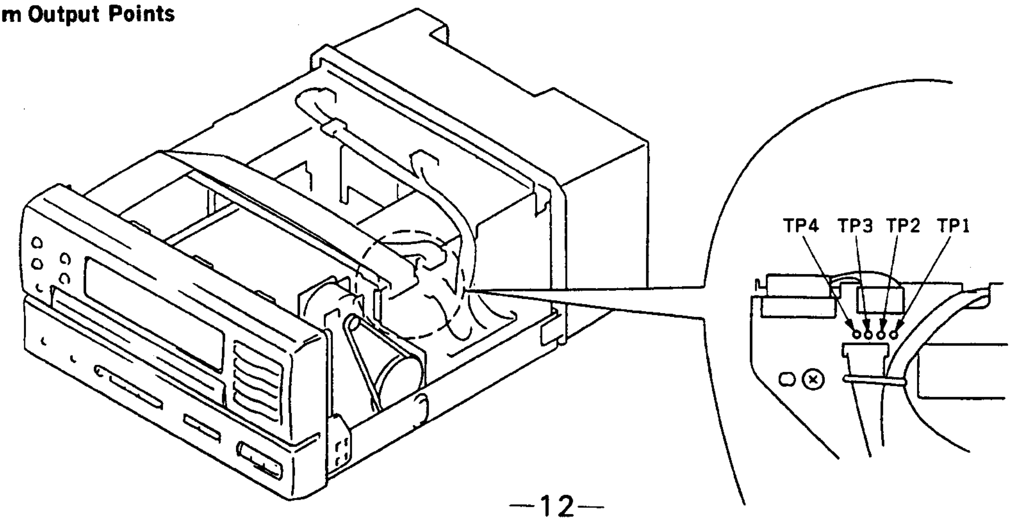
Pin No.	Pin Name	I/O	Description
1	NC		No connect pin
2	AVDD	—	Power pin (+5V)
3, 4	VDD	—	Power pin (+5V)
5—8	E3—0	I	Stocker position detection encoder input (4-bit parallel decoder). * 1
9—16	D7—0	O	Data output port of IC206 (64K SRAM) (8-bit parallel data).
17	GFS	I	GFS signal input from IC209 (CXD2500BQ). "L" for NG, "H" for OK.
18	SENSE	I	SENS input from IC101 (CXD1372Q) and IC209 (CXD2500BQ).
19	$\overline{\text{DOWN SW}}$	I	Down input of S101 (BD Up and Down switch).
20	$\overline{\text{UP SW}}$	I	Up input of S101 (BD Up and Down switch).
21—24	A11—8	O	IC106 (64K SRAM) address output port.
25	49 PIN SELECT	O	Pin ㊾ function select. Always "L" for use of Stock IN in this set.
26	LD ON	O	BD laser diode control output. "H" to toggle ON, "L" to toggle OFF.
27	WE	O	IC206 (64K SRAM) write enable output. "H" to disable, "L" to enable.
28—32	A12, A7—4	O	IC206 (64K SRAM) address output port.
33	GND	—	Power pin (GND)
34—37	A3—0	O	IC206 (64K SRAM) address output port.
38	QINT	I/O	Interrupt signal output during communication with master controller. * 2
39	$M/\overline{F}$	I/O	To determine type of communication with master controller. "H" for mechanism command data, "L" for file command data.
40	SACK	I/O	Answer code input from master controller during communication with master.
41	MREQ	I/O	Master request signal input for communication with master controller.
42—45	CMD3—0	I/O	Command data line in communication with master controller.
46	CHIN	I	Track jump count input from IC101 (CXD1372Q).
47	FOK	I	Focus OK signal input from IC101 (CXD1372Q). "H" for OK.
48	SCOR	I	Sub code sink S0+S1 detection input from IC209 (CXD2500BQ).
49	SENSER	I	STOK IN signal input in this set. 
50	SUBQ	I	Sub code Q data input from IC209 (CXD2500BQ).
51	GND	—	Power pin (GND)
52	SQCK	O	Sub code Q data read clock output to IC209 (CXD2500BQ).
53	$\overline{\text{ADJ}}$	I	Test Mode input. "L" to enter Test Mode.
54	GND	—	Power pin (GND)
55	XT1	—	Not used (GND)
56	XT2	—	Not used (Open)
57	GND	—	Power pin (GND)
58, 59	X1, 2	I	System clock input (4.19MHz)
60	$\overline{\text{RESET}}$	I	System clock input. "L" to reset.
61	D/F LATCH	O	IC210 (MSM6538) latch signal output.
62	DSP LATCH	O	IC209 (CXD2500BQ) latch signal output.
63	CLK	O	Clock data output to IC210 (MSM6538).

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>64</td><td>DATA</td><td>O</td><td>Data output to IC210 (MSM6538).</td></tr>
<tr><td>65</td><td>DFCT SW</td><td>O</td><td>Used during focus search to turn OFF (set "H") flaw detection circuit of ON/OFF select output DISC in DEFECT circuit of IC101 (CXD1372Q).</td></tr>
<tr><td>66</td><td>MUTE</td><td>O</td><td>Muting control output. "H" to mute.</td></tr>
<tr><td>67</td><td>M3M</td><td>O</td><td rowspan="2">Clamp motor control output
<table>
<tr><th></th><th>UP</th><th>DOWN</th><th>BREAK</th></tr>
<tr><td>P</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>M</td><td>L</td><td>H</td><td>H</td></tr>
</table></td></tr>
<tr><td>68</td><td>M3P</td><td>O</td></tr>
<tr><td>69</td><td>M2M</td><td>O</td><td rowspan="2">Stocker motor control output
<table>
<tr><th></th><th>UP</th><th>DOWN</th><th>BREAK</th></tr>
<tr><td>P</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>M</td><td>L</td><td>H</td><td>H</td></tr>
</table></td></tr>
<tr><td>70</td><td>M2P</td><td>O</td></tr>
<tr><td>71</td><td>M1M</td><td>O</td><td rowspan="2">Loading motor control output
<table>
<tr><th></th><th>OUT</th><th>IN</th><th>BREAK</th></tr>
<tr><td>P</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>M</td><td>L</td><td>H</td><td>H</td></tr>
</table></td></tr>
<tr><td>72</td><td>M1P</td><td>O</td></tr>
<tr><td>73</td><td>AGND</td><td>—</td><td>Power pin (GND)</td></tr>
<tr><td>74</td><td>STOK OK</td><td>I</td><td>Tray position detection input. "L" for stocker UP/DOWN enabled position.</td></tr>
<tr><td>75</td><td>DISC SENS</td><td>I</td><td>Used to determine whether disc is present or not. "⎍" : With, "—" : Without</td></tr>
<tr><td>76</td><td>$\overline{\text{IN SW}}$</td><td>I</td><td>S103 (Loading In switch) input</td></tr>
<tr><td>77</td><td>$\overline{\text{OUT SW}}$</td><td>I</td><td>S104 (Loading Out switch) input</td></tr>
<tr><td>78</td><td>$\overline{\text{TEST}}$</td><td>I</td><td rowspan="2">Test Mode input. "L" for Test Mode.</td></tr>
<tr><td>79</td><td>$\overline{\text{AF ADJ}}$</td><td>I</td></tr>
<tr><td>80</td><td>NC</td><td></td><td>No connect pin</td></tr>
</table>

* 1 Encoder output waveform from DISC1 to DISC5



Waveform Output Points



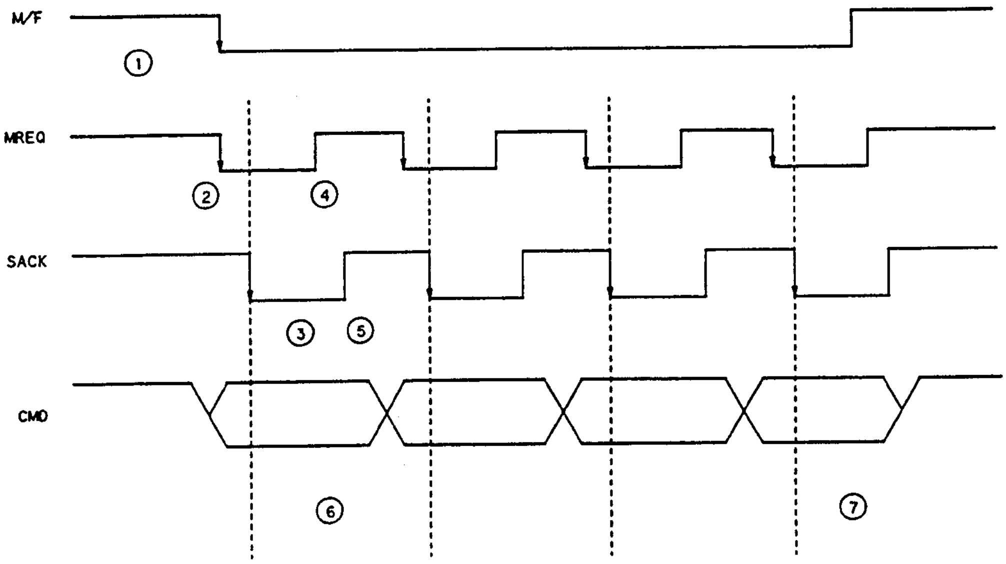
* 2 Communications between mechanism microprocessor IC250 and master microprocessor IC301
Format in general communications......(1) and (2)

Initial Communication

Initial communication is made between mechanism microprocessor IC250 and master microprocessor IC301 in their respective initial routines. This has a different format from general communications. Handshake is performed in MTREQ and SACK. If any fault occurs in initial communication, the communication stops at that points, so the indicator remains extinguished.

(1) Command Receive and Transmission
Communications between mechanism controller and master controller are made using eight signal lines between their ports (CMD1, CMD2, CMD3, CMD4, MREQ, SACK, M/F and QINT).

Format of Receive and Transmission from Master

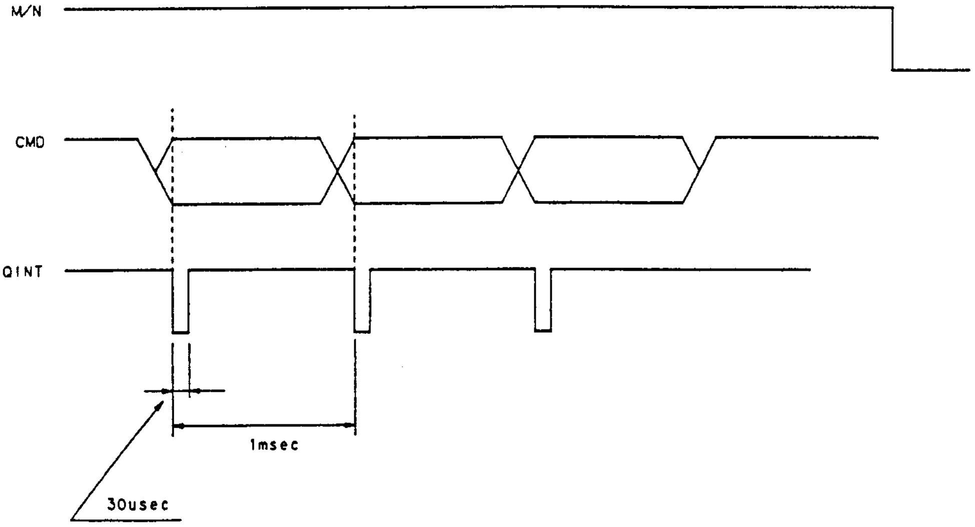


Timing of transmit from master controller to mechanism controller

① M/F pin is to be set "High" when master microprocessor sends mechanism command and "Low" when it sends a file command. Mechanism controller will not make Q data communication when M/F pin is "Low".
② When sending a command from master microprocessor to mechanism controller, the data is put on the CMD line and this pin (MREQ) is set "Low".
③ Mechanism controller monitors the MREQ pin in its main routine. It latches the CMD data when the pin is at "Low" level. Then, it sets this pin (SACK) "Low".
④ Master controller confirms that the SACK pin is set "Low" and it sets the MREQ pin "High".
⑤ Then, when the MREQ pin is "High" and the SACK pin is "Low", mechanism controller sets the SACK "High" and it is ready to accept the send command.
⑥ The signal from master begins with "A"—"E". If the mechanism controller receives any code other than this, it treats as an error.
⑦ This signal ends with "F". After this is confirmed, the flag is set and the command is then decoded in the main routine.

(2) Format of Transmission to Master

The QINT pin, M/F pin and MD port are used to send a command to master microprocessor. This transmission from mechanism controller to master microprocessor is used for responses to DISC status information, SW state and file information. Also, the same transmission format is used to send Q data from mechanism controller to master.



When data can be sent from mechanism controller, the data is then sent to the CMD line. Therefore the QINT pin of mechanism controller is dropped by about 30μsec.

The timing of data transmission is controlled by timer process within microprocessor so that data will be sent at intervals of 1 msec.

The QINT pin of master controller is an interrupt port, so data sent from mechanism controller is to be received.

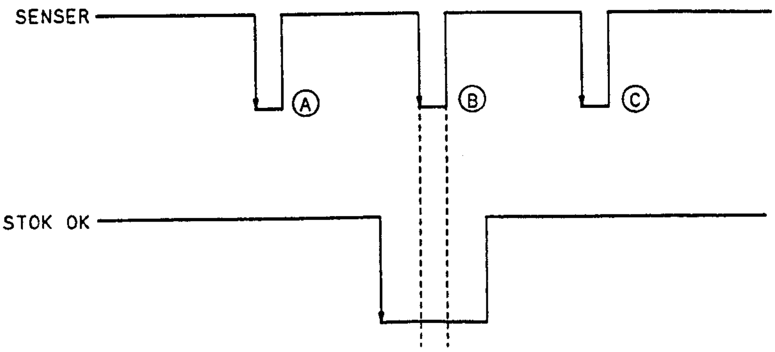
Any request from master microprocessor (MREQ pin "Low") during data transmission to master will take first priority in processing.

Basic Condition of Mechanism Controller

Mechanism controller takes precedence over instruction from master microprocessor.

(3) Timing at Pins ㊾ and (74) of IC250

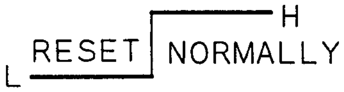
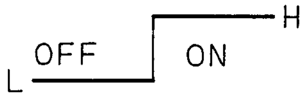
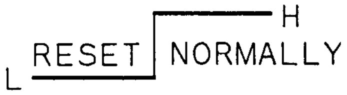
Waveform at SENSER (IC250 pin ㊾) and STOK OK (IC250 pin (74)) when tray is OPEN/CLOSE



As shown above, the center pulse (Ⓑ) of SENSER mute fall within the pulse of STOK OK when tray is OPEN/CLOSE. If any of the pulses on both sides (Ⓐ and Ⓒ) of SENSER is input for BOX UP/DOWN, the mechanism microprocessor reduces the tray speed, stops in the position (Ⓑ) and allows UP/DOWN movement.

If there is any abnormality in the OPEN/CLOSE relationship, these two waveforms should be checked.

• IC301 μPD75518GF-059-3B9

Pin No.	Signal	Pin Name	Description
1	AN0	KEY0	KEY analog input
2	AVREF		+5V
3, 4	VDD		
5	P113		Open
6	P112	DRIVER	Driver reset 
7	P111	ICON OFF	Servo system ON/OFF 
8	P110	MEC REST	Mechanism controller reset 
9	P103		Open
10	P102	$\overline{\text{CS}}$	Driver chip select
11	P101	BUS OUT	Audio bus output port
12	P100	$\overline{\text{MREQ}}$	For communication with mechanism controller, and master request.
13	P93	AUB/$\overline{\text{SIR}}$	Switching between BUS and SIRCS (no function)
14	P92	$\overline{\text{TEST}}$	This pin is set "L" and POWER is ON to display the accident code
15	P91	$\overline{\text{SUF, REP}}$	This pin is set "L" to operate ALL DISCS SHUFFLE REPT
16	P90	SFIL/$\overline{\text{EDT}}$	This pin is set "L" to change S. F. FILE key to EDIT key
17—20	P83—80		+5V
21—23	P73—71		+5V
24	P70	SACK	For communication with mechanism controller, and Answer Code from master.
25—28	P63—60		Open
24—31	P53—51		
32	P50	LED4	LED data
33	VSS		GND
34—37	P43—40	LED3—0	LED data
38—40	P23—20		Open
46, 47	P13, 12		GND
48	INT1	QINT	Interrupt from mechanism controller
49	INT0	BUSIN	Interrupt of audio bus
50	P03		+5V
51	SO0	DPDAT	Output as serial port, used as serial clock to send displayed data to driver.
52	SCK0	DPCK	
53	P00		GND
54	VSS		GND
55	XT1		GND
56	XT2		Open
57	IC		GND
58	X1		4.19MHz oscillator
59	X2		
60	$\overline{\text{RESET}}$		Reset input for this microprocessor

Pin No.	Signal	Pin Name	Description
61—64	P143—140		Open
65, 66	P133, 132		
67, 68	P131, 130	LEDG1, 0	LED digital 1, 0.
69—72	P123—120	CMD3—0	Communication with mechanism controller (data 3—0)
73	AVSS		GND
74—77	P153—150		GND
78—80	AN3—1	KEY3—1	KEY analog input

9-957-394-81

Sony Corporation
Audio Group

English
93F04100-1

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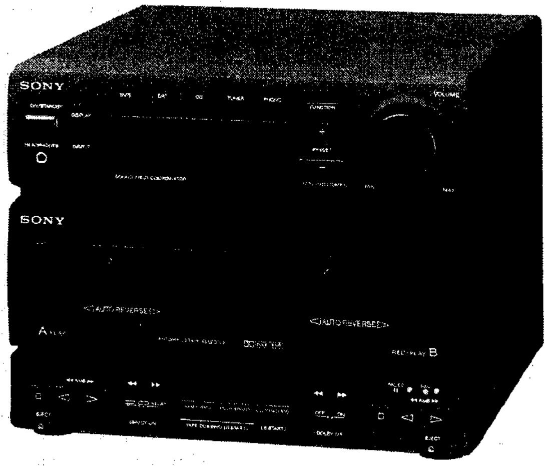
SONY-06187

DXA-H2750

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



This set is the Amplifier, cassette deck section in FH-E705C, MHC-2750.

Model Name Using Similar Mechanism		TC-H2700/H3700
Tape Transport Mechanism Type	DECK A	TCM-190RA13A
	DECK B	TCM-190RB22A

SPECIFICATIONS

Amplifier Section

Continuous RMS power output	US, CND model: 45 + 45 watts (6 ohms at 1 kHz, 5% THD) E, EA, AUS, TR model: 40 + 40 watts (6 ohms at 1 kHz, 5% THD) AEP, UK, G, IT model: 35 +35 watts (6 ohms at 1 kHz, DIN)
Music power output	AEP, UK, G, IT model: 60 + 60 watts (6 ohms at 1 kHz, 10% THD)
Peak music power output	E, EA, AUS, TR model: 400 watts
Inputs	DAT IN (phono jacks): sensitivity 450 mV, impedance 47 kilohms AEP, UK, G, IT model: PHONO IN (phono jacks): sensitivity 5 mV, impedance 47 kilohms Except AEP, UK, G, IT model: VIDEO IN (phono jacks): sensitivity 450 mV, impedance 47 kilohms
Outputs	HEADPHONES (stereo minijack): accepts headphones of 8 ohms or more SPEAKERS: accepts speakers of 6 to 16 ohms

Cassette Deck Section

Recording system	4-track 2-channel stereo
Frequency response	(DOLBY NR OFF) 40 — 13,000 Hz (±3 dB), using TYPE I cassette (Sony HF-S) 40 — 14,000 Hz (±3 dB), using TYPE II cassette 40 — 15,000 Hz (±3 dB), using TYPE IV cassette
Wow and flutter	0.1% WRMS ±0.3% (DIN)

Design and specifications subject to change without notice.

MICROFILM

STEREO CASSETTE DECK AMPLIFIER

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

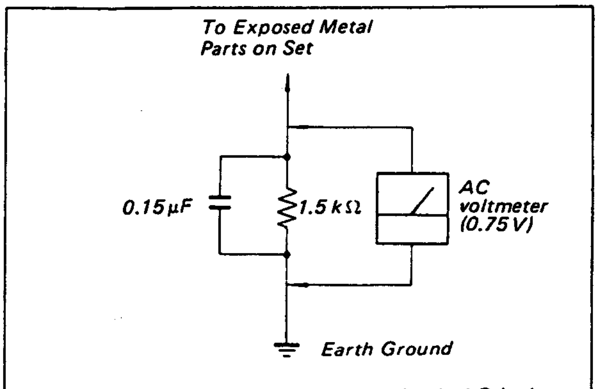
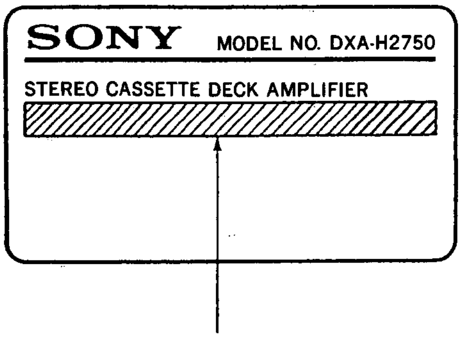


Fig. A. Using an AC voltmeter to check AC leakage.

MODEL IDENTIFICATION

— Model Number Label —



US model: AC: 120V 60Hz 105W
CND model: AC: 120V 60Hz 115W
AEP model: AC: 220–230V~50/60Hz
UK model: AC: 240V~50Hz
E, EA, TR model: AC: 120/220/230–240V~50/60Hz 110W
G, IT model: AC: 220–230V~50Hz
AUS model: AC: 240V~50Hz 110W

- CND: Canadian model
- AUS: Australian model
- G: Germany model
- IT: Italian model
- EA: Saudi Arabia model
- TR: Tourist model

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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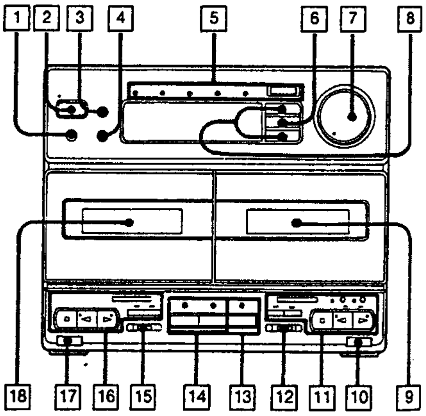
* * *

SECTION 1
GENERAL

1-1. PARTS IDENTIFICATIONS

This section is extracted from instruction manual.

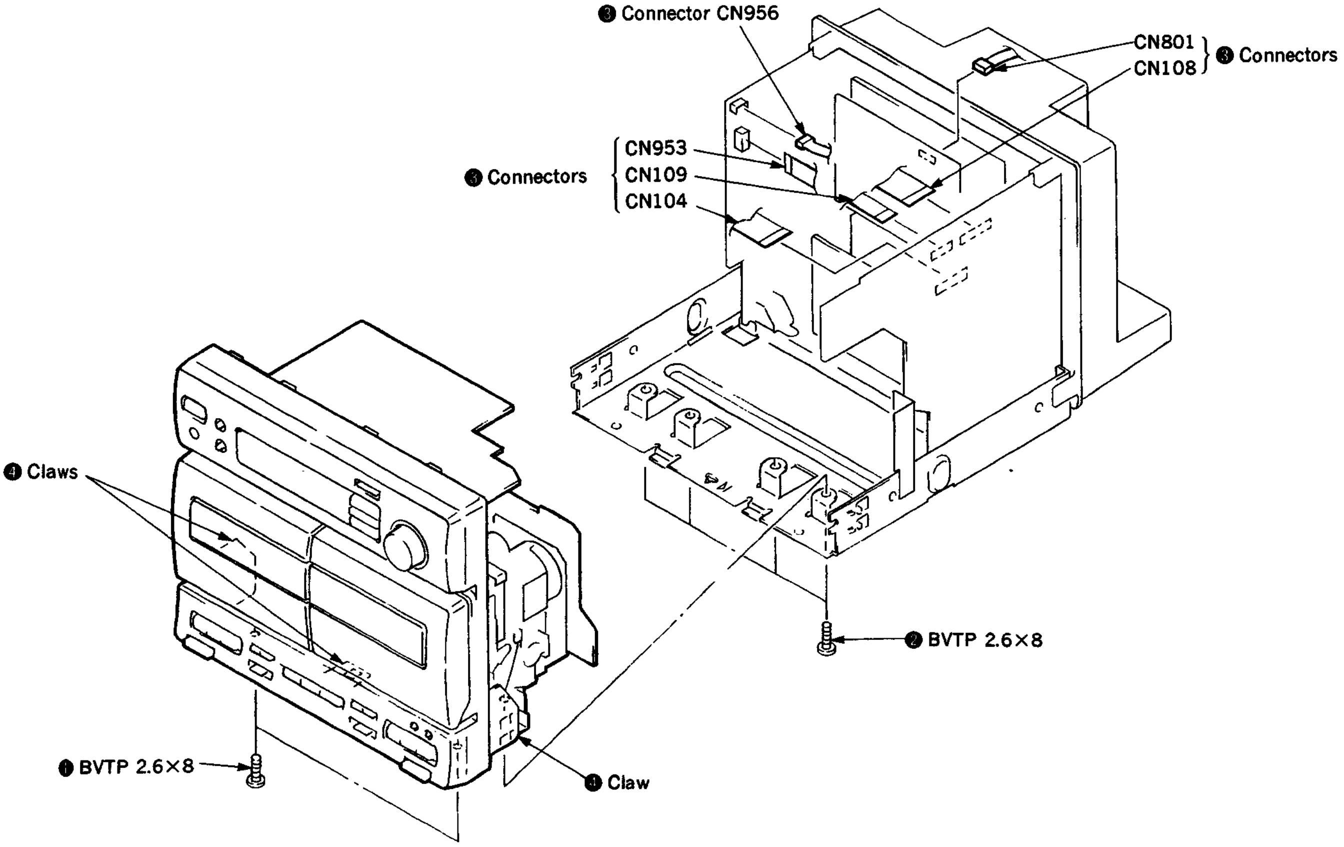
[1] HEADPHONES jack (stereo minijack)
[2] SYSTEM POWER switch and STANDBY indicator
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
[3] DISPLAY button (66)
[4] DIRECT button and indicator (66)
[5] FUNCTION button and function indicators ⑳ (80)
[6] PRESET button (66)
[7] VOLUME control ㉖
[8] TOTAL EFFECT CONTROL –/+ buttons (68)
[9] Cassette holder (Deck B)
[10] EJECT ≜ button (Deck B)
[11] Tape operation buttons (for Deck B)
  □: Stop button
  ▷: Forward play button and indicator
  ◁: Reverse play button and indicator
  ◀◀ ▶▶: Fast winding buttons
  PAUSE ▮▮: button and indicator
  REC ●: button and indicator
[12] DOLBY NR (Dolby Noise Reduction) switch (60)
[13] CD SYNCHRO button (90) (96)
[14] TAPE DUBBING buttons (84)
  NORMAL SPEED button
  HIGH SPEED button
[15] DIRECTION mode selector (60) (64)
[16] Tape operation buttons (for Deck A)
  □: Stop button
  ▷: Forward play button and indicator
  ◁: Reverse play button and indicator
  ◀◀ ▶▶: Fast winding buttons
[17] EJECT ≜ button (Deck A)
[18] Cassette holder (Deck A)



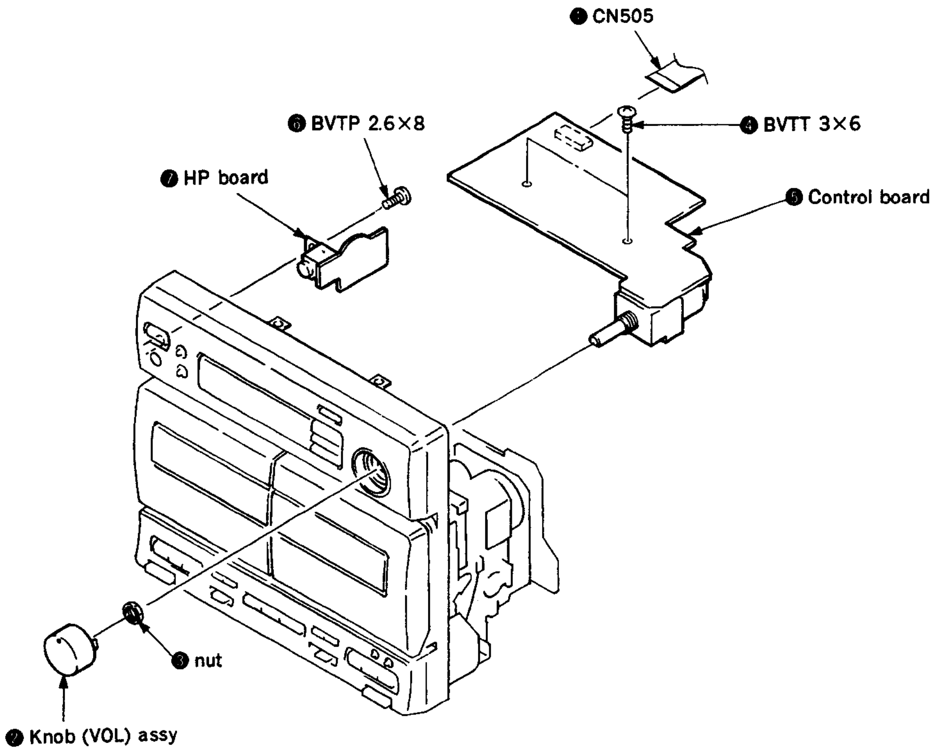
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

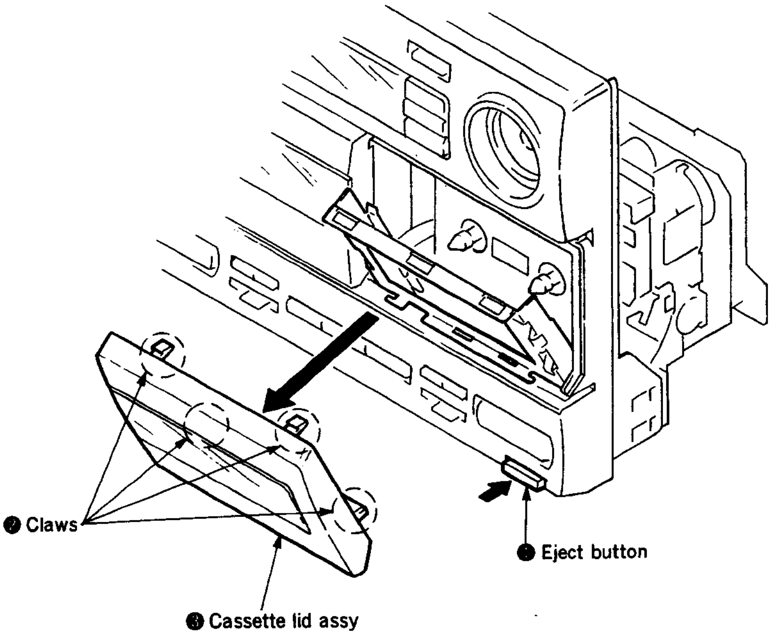
2-1. FRONT PANEL


❸ Connector CN956
CN801
CN108
❸ Connectors
❸ Connectors
CN953
CN109
CN104
❹ Claws
❷ BVTP 2.6×8
❶ BVTP 2.6×8
❺ Claw

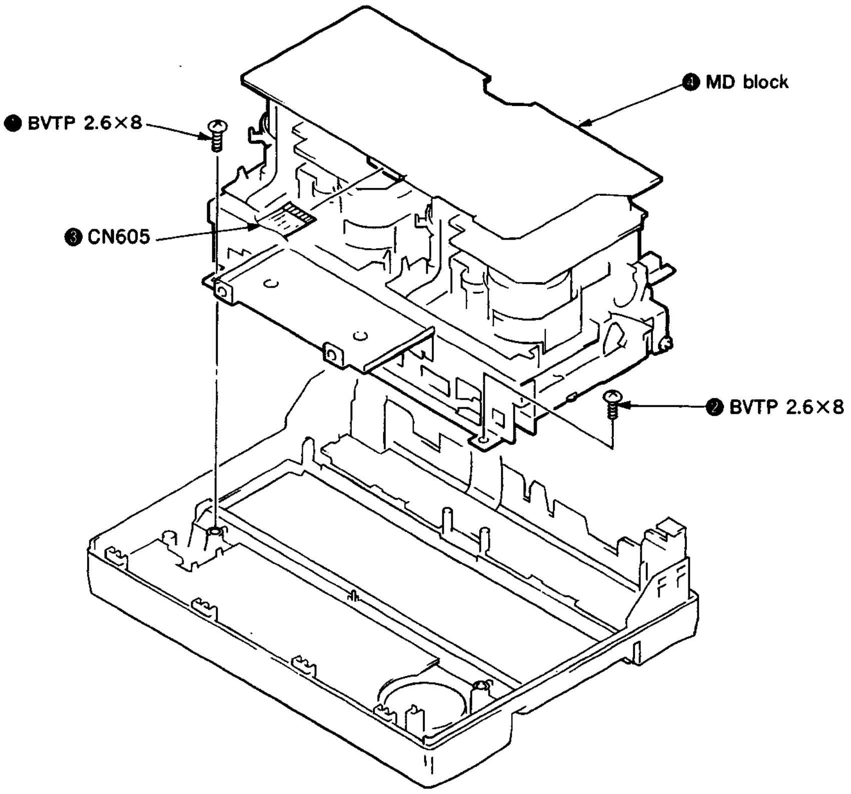
2-2. CONTROL BOARD, HP BOARD


❶ CN505
❻ BVTP 2.6×8
❹ BVTT 3×6
❼ HP board
❺ Control board
❸ nut
❷ Knob (VOL) assy

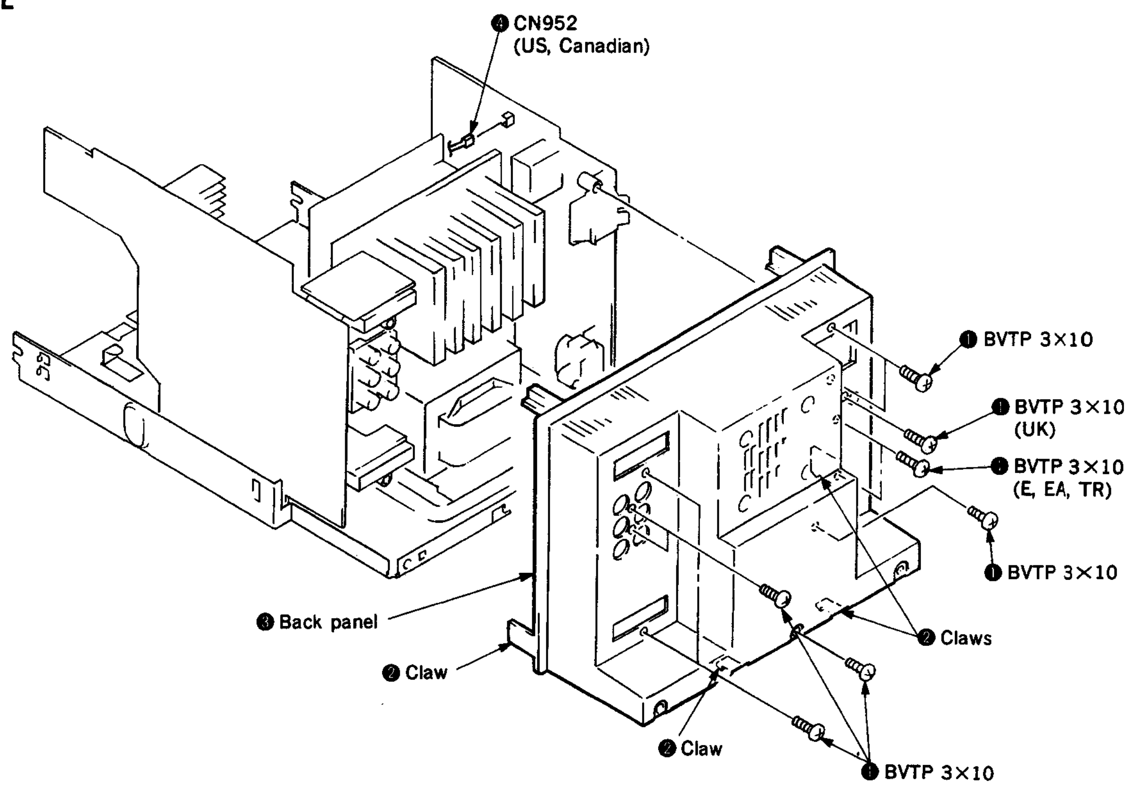
2-3. CASSETTE LID ASSY


❷ Claws
❶ Eject button
❸ Cassette lid assy

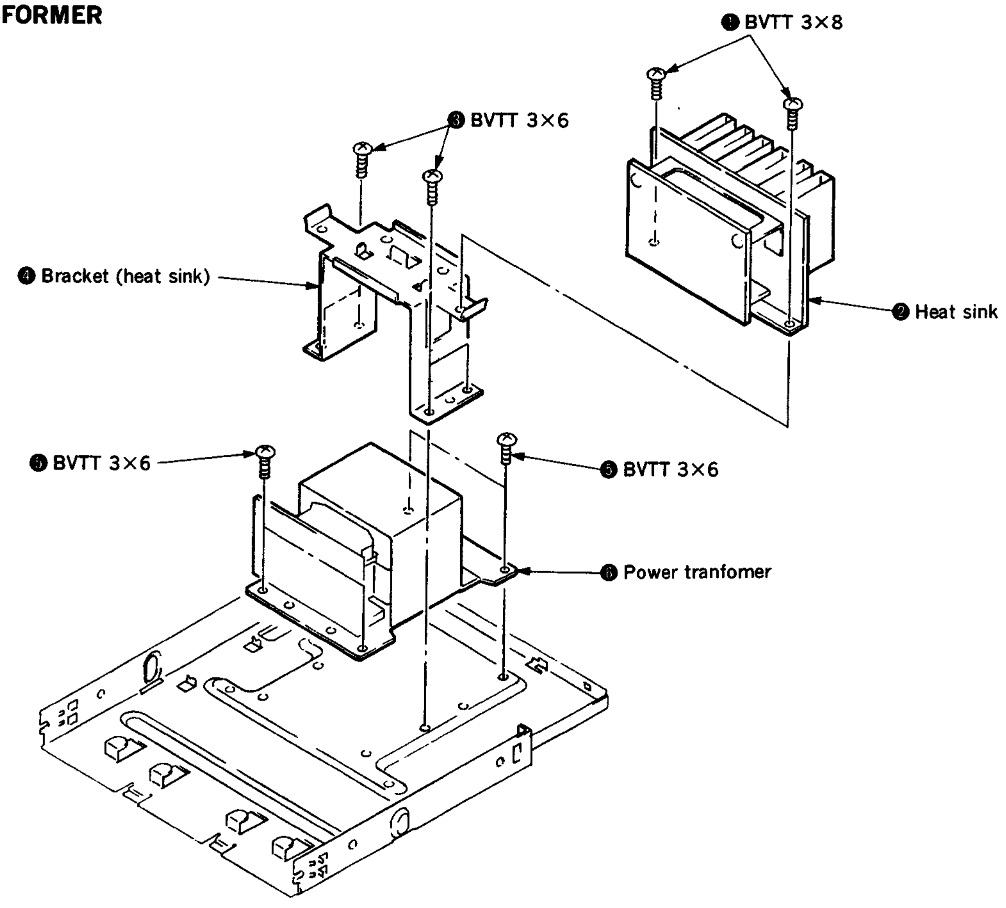
2-4. MD BLOCK


❹ MD block
❶ BVTP 2.6×8
❸ CN605
❷ BVTP 2.6×8

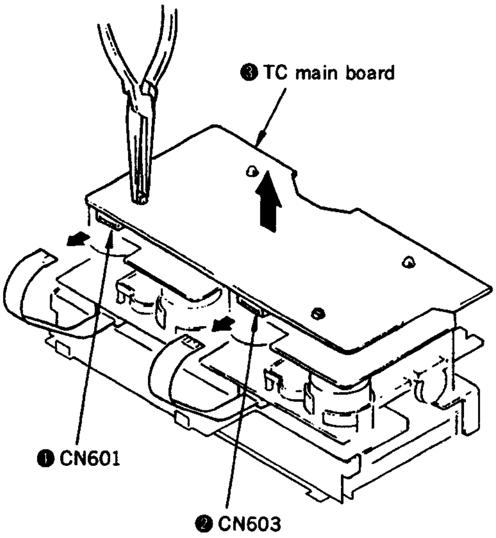
2-5. BACK PANEL


❹ CN952
(US, Canadian)
❶ BVTP 3×10
❶ BVTP 3×10
(UK)
❶ BVTP 3×10
(E, EA, TR)
❶ BVTP 3×10
❸ Back panel
❷ Claws
❷ Claw
❷ Claw
❶ BVTP 3×10

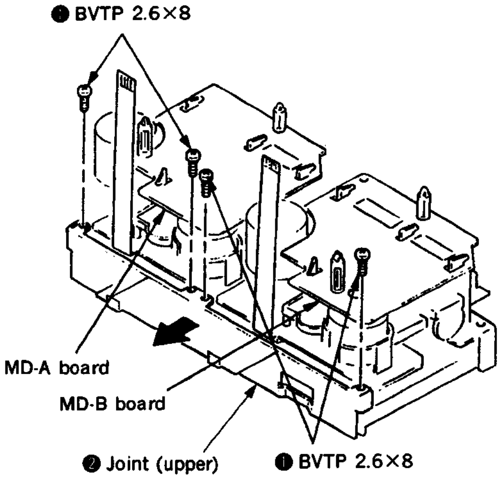
2-6. POWER TRANSFORMER


❶ BVTT 3×8
❸ BVTT 3×6
❹ Bracket (heat sink)
❷ Heat sink
❺ BVTT 3×6
❺ BVTT 3×6
❻ Power tranfomer

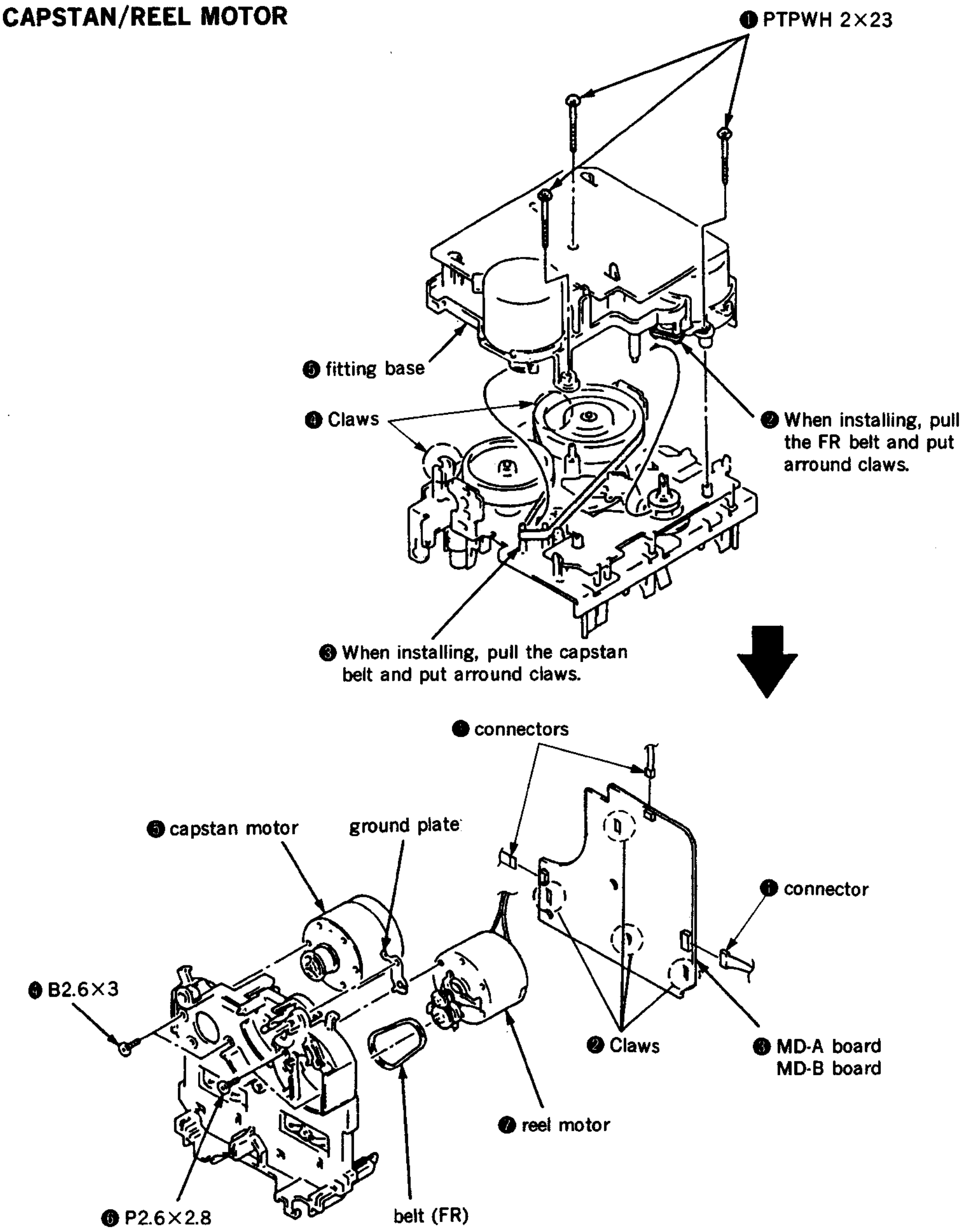
2-7. TC MAIN BOARD


❸ TC main board
❶ CN601
❷ CN603

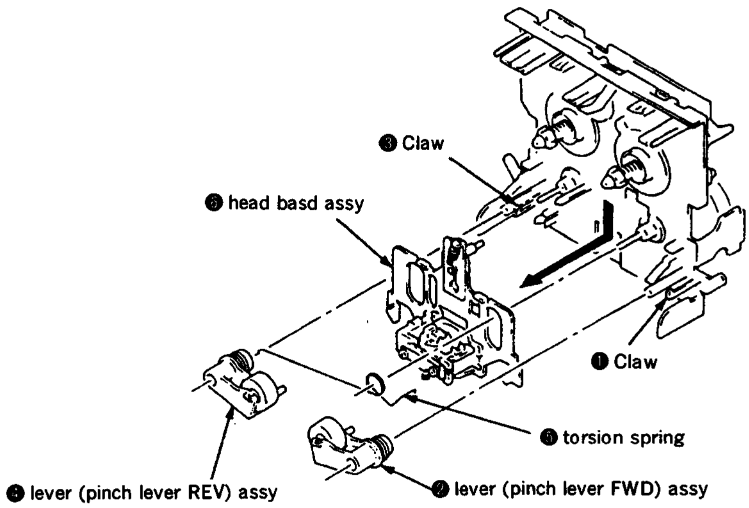
2-8. JOINT (UPPER)


❶ BVTP 2.6×8
MD-A board
MD-B board
❷ Joint (upper)
❶ BVTP 2.6×8

2-9. CAPSTAN/REEL MOTOR


❶ PTPWH 2×23
❺ fitting base
❹ Claws
❷ When installing, pull the FR belt and put arround claws.
❸ When installing, pull the capstan belt and put arround claws.
● connectors
❺ capstan motor
ground plate
❶ connector
❹ B2.6×3
❷ Claws
❸ MD-A board
MD-B board
❼ reel motor
❻ P2.6×2.8
belt (FR)

2-10. HEAD BASE ASSY


❸ Claw
❻ head basd assy
❶ Claw
❺ torsion spring
❹ lever (pinch lever REV) assy
❷ lever (pinch lever FWD) assy

SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcoholmoistened swad:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
   (Head demagnetizer do not approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be perfomed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30 to 65g • cm (0.42 to 0.90 oz • inch)
Forward back tension	CQ-102C	1 to 6g • cm (0.014 to 0.08oz • inch)
Reverse	CQ-102RC	30 to 65g • cm (0.42 to 0.90oz • inch)
Reverse back tension	CQ-102RC	1 to 6g • cm (0.014 to 0.08oz • inch)
Forward, Reverse	CQ-201B	70 to 120g • cm (0.98 to 1.67 oz • inch)

SECTION 4
ELECTRICAL ADJUSTMENTS

PRECAUTION

1. The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
   - Switch position
     DOLBY NR switch: OFF
3. Perior to electrical adjustments, short the connector TP401 (test mode).

Test Tape

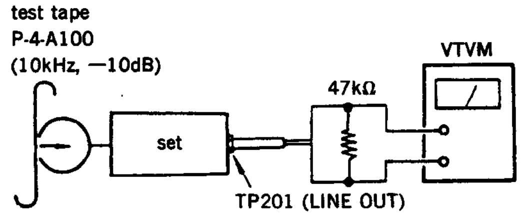
Tape	Contents	Use
P-4-A100	10kHz, −10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

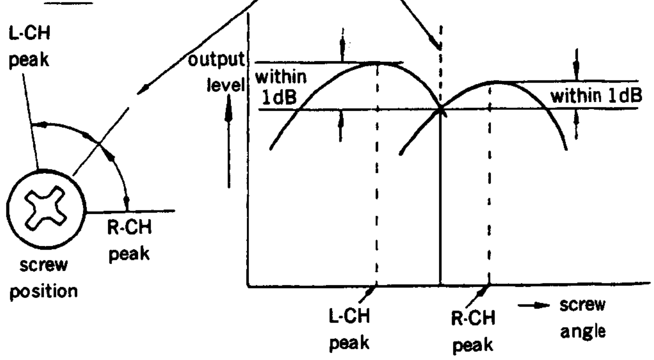
DECK A **DECK B**

Procedure:

1. Forward Playback Mode

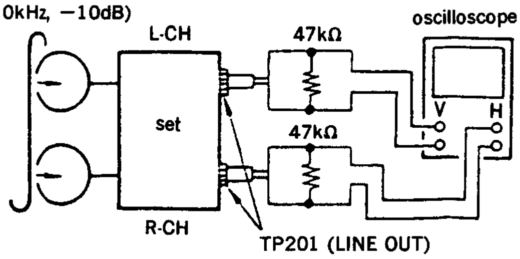


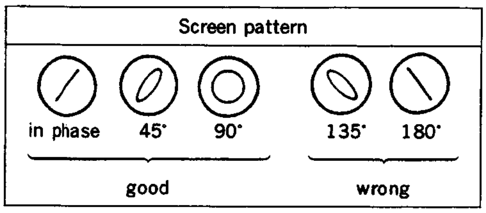
2. Turn the adjustment screw for the maximum output levels. If these levels do notmatch, turn the adjustment screw until both of output levels match together within 1dB.



3. Playback Mode

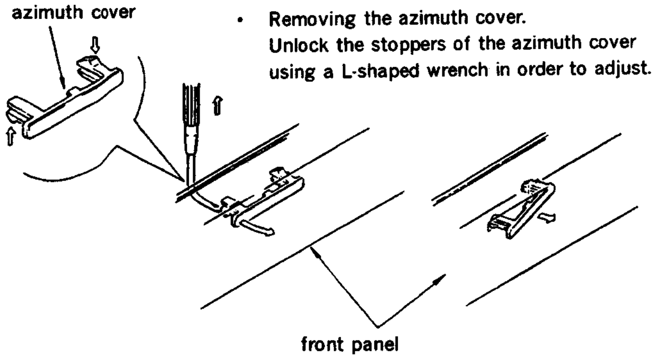
test tape
P-4-A100
(10kHz, −10dB)


L-CH
47kΩ
oscilloscope
set
47kΩ
V
H
R-CH
TP201 (LINE OUT)

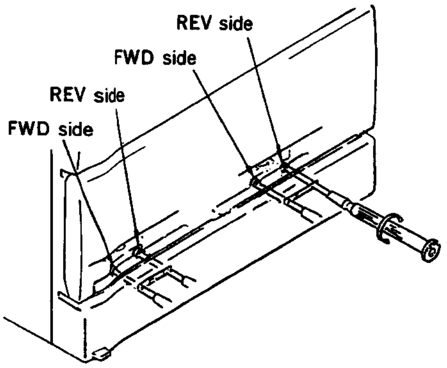

Screen pattern
in phase
45°
90°
135°
180°
good
wrong

4. Change the reverse playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location : —record/playback head—


azimuth cover
front panel

- Removing the azimuth cover.
  Unlock the stoppers of the azimuth cover using a L-shaped wrench in order to adjust.

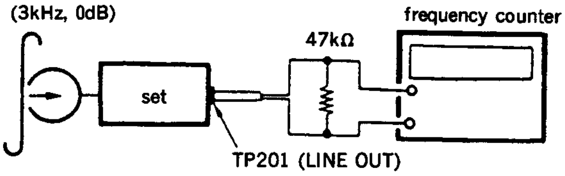

REV side
FWD side
REV side
FWD side

Tape Speed Adjustment **DECK A** **DECK B**

Procedure :

—Forward Playback Mode—

test tape
WS-48B
(3kHz, 0dB)


frequency counter
47kΩ
set
TP201 (LINE OUT)

Perform high speed adjustment before normal speed adjustment.

(High speed adjustment)

1. Turn on the power and put the deck A into the FWD mode.
2. Press the HIGH SPEED switch.
3. Adjust RV72A (H) of the deck A so that a reading on the frequency counter meets the adjustment value.
4. Adjust the RV72B (H) of deck B performing steps 1 to 3 as deck A.

(Normal speed adjustment)

1. Put the set into the FWD playback mode.
2. Press the NORMAL SPEED switch.
3. At this time, adjust RV71A (L) of the deck A and RV71B (L) of the deck B so that a reading on the frequency counter meets the adjustment value.

Adjustment Limits :

Speed	Frequency Counter Reading
High	6,000 ± 20Hz
Normal	3,000 ± 10Hz

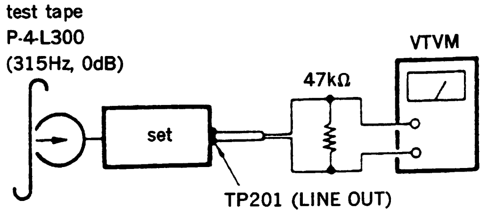
Frequency difference between the beginning and the end of the tape should be within 3%.
Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

Adjustment Location : MD-A Board, MD-B Board

Playback Level Adjustment DECK A DECK B

Procedure:

—Forward Playback Mode—


test tape
P-4-L300
(315Hz, 0dB)
VTVM
47kΩ
set
TP201 (LINE OUT)

Adjust deck A: RV11A (L-CH), RV21A (R-CH) and deck B: RV11B (L-CH), RV21B (R-CH) so that the VTVM reading becomes the adjustment limits below.

Adjustment Limits:

LINE OUT level: −7.7 ± 0.5dB 0.301 to 0.338V

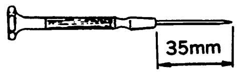
Level Difference between Channels: within 0.5dB

Confirm the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

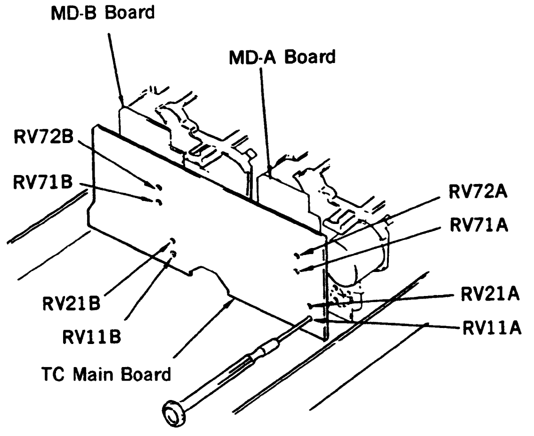
Adjustment Location: MD-A Board, MD-B Board

Tape Speed/playback Level Adjustment

Screwdriver to adjust the MD block



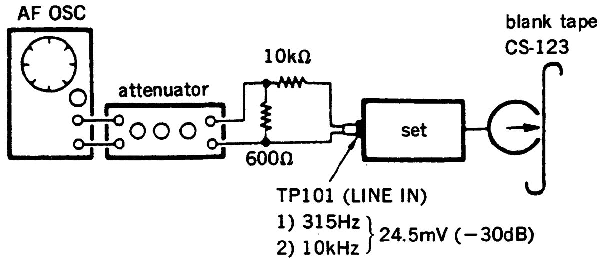
The MD block adjustment can be performed by inserting a screwdriver of which axis length (not including the shaft) is 35 mm or more through the rear side of the main board.


MD-B Board
MD-A Board
RV72B
RV71B
RV72A
RV71A
RV21A
RV11A
RV21B
RV11B
TC Main Board

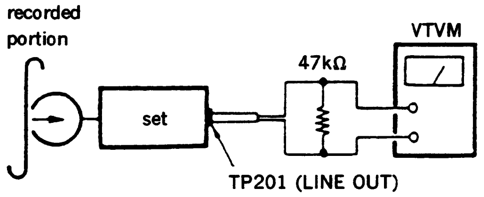
Record Bias Adjustment DECK B

Procedure:

1. Record Mode


AF OSC
attenuator
10kΩ
600Ω
set
blank tape
CS-123
TP101 (LINE IN)
1) 315Hz
2) 10kHz
24.5mV (−30dB)

2. Playback Mode


recorded
portion
set
47kΩ
VTVM
TP201 (LINE OUT)

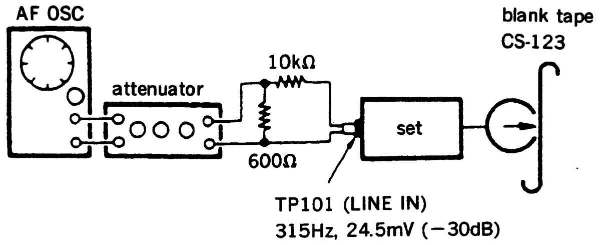
Playback the signal recorded in step 1.
Confirm that the 10kHz playback output is 0 ± 0.5dB (0.732 to 0.821V) relative to the 315Hz output. if necessary. Adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

Adjustment Location: MD-B Board

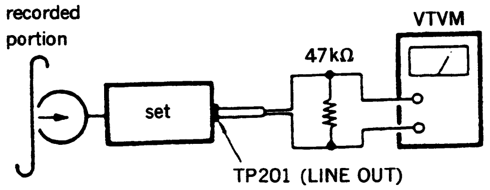
Record Level Adjustment DECK B

Procedure:

1. Record Mode


AF OSC
attenuator
10kΩ
600Ω
set
blank tape
CS-123
TP101 (LINE IN)
315Hz, 24.5mV (−30dB)

2. Playback Mode


recorded
portion
set
47kΩ
VTVM
TP201 (LINE OUT)

Confirm playback the tape recorded become adjustment level as follows.
If necessary, adjust RV201 (L-CH), RV301 (R-CH) and repeat steps 1 and 2.

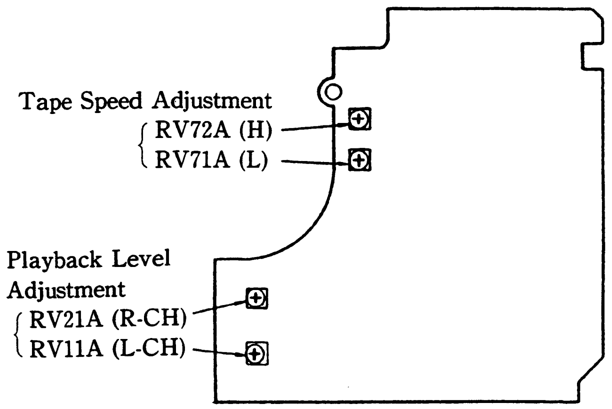
Adjustment Limits:

LINE OUT level: −26 ± 0.5dB (37 to 41mV)

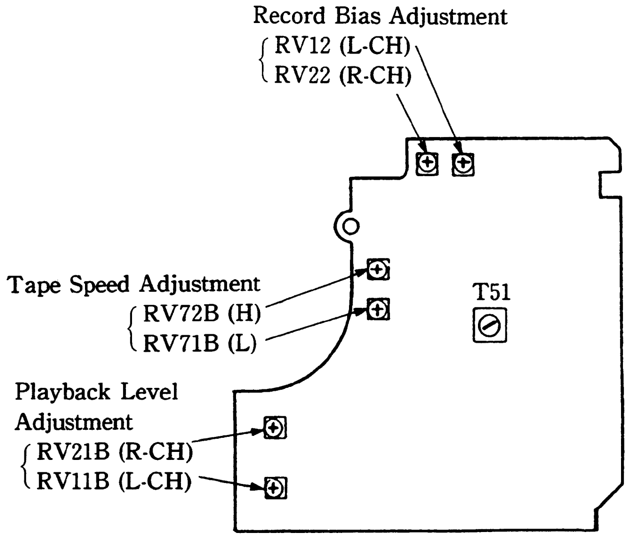
Adjustment Location: main board

Adjustment Location:

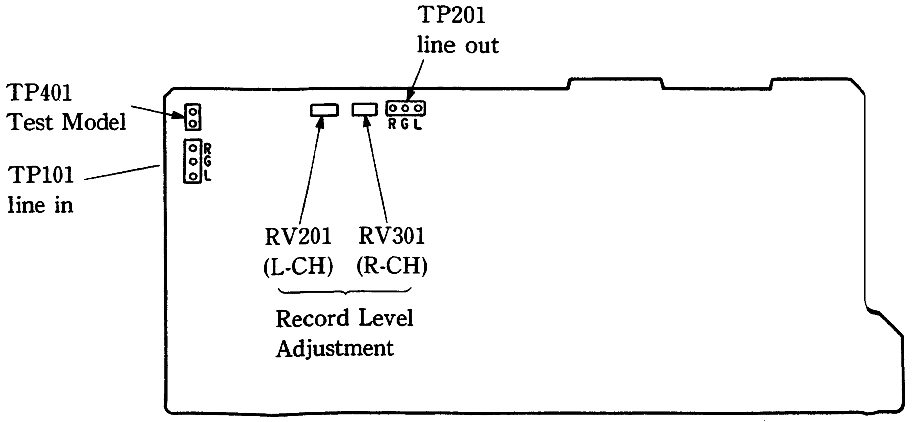
[MD-A Board] —Component Side—

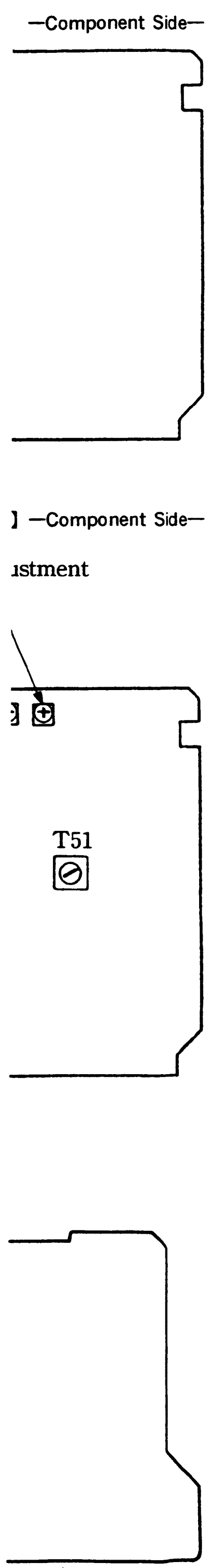

Tape Speed Adjustment
RV72A (H)
RV71A (L)
Playback Level
Adjustment
RV21A (R-CH)
RV11A (L-CH)

[MD-B Board] —Component Side—


Record Bias Adjustment
RV12 (L-CH)
RV22 (R-CH)
Tape Speed Adjustment
RV72B (H)
RV71B (L)
T51
Playback Level
Adjustment
RV21B (R-CH)
RV11B (L-CH)

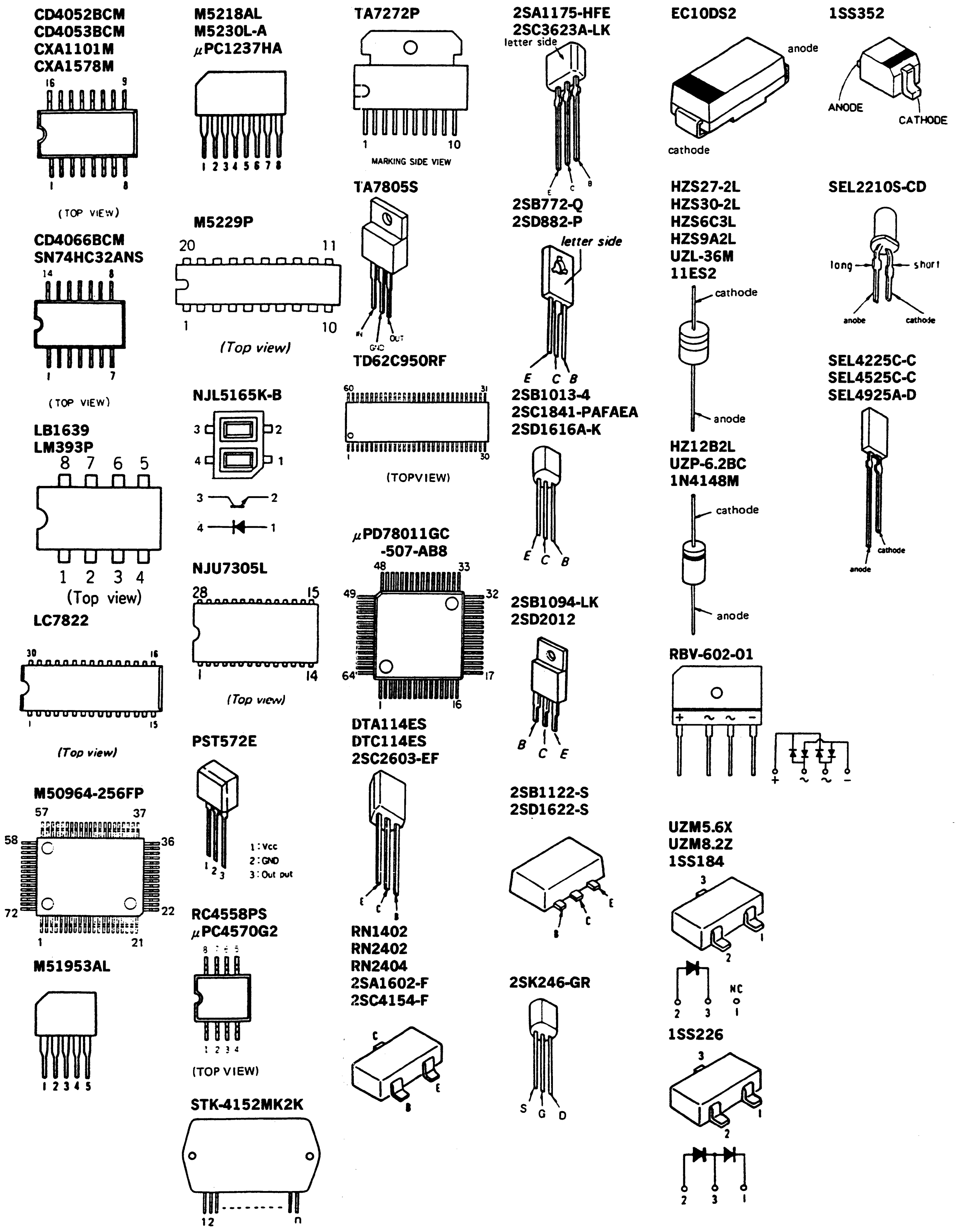
[TC Main Board] —Component Side—


TP201
line out
TP401
Test Model
TP101
line in
R G L
RV201
(L-CH)
RV301
(R-CH)
Record Level
Adjustment

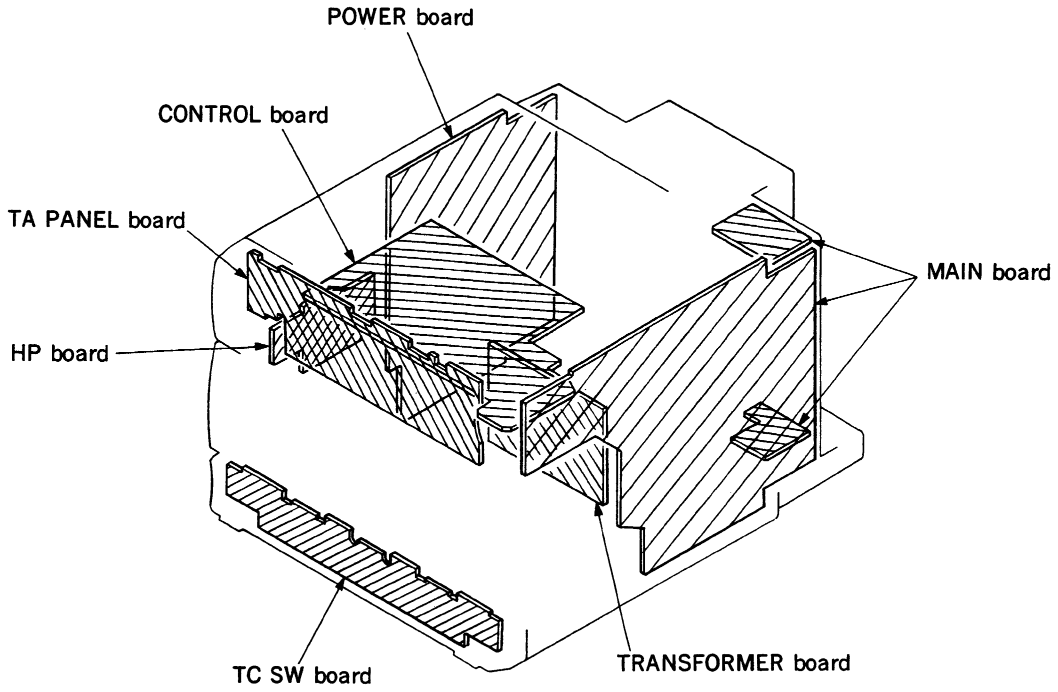

—Component Side—
] —Component Side—
ıstment
T51

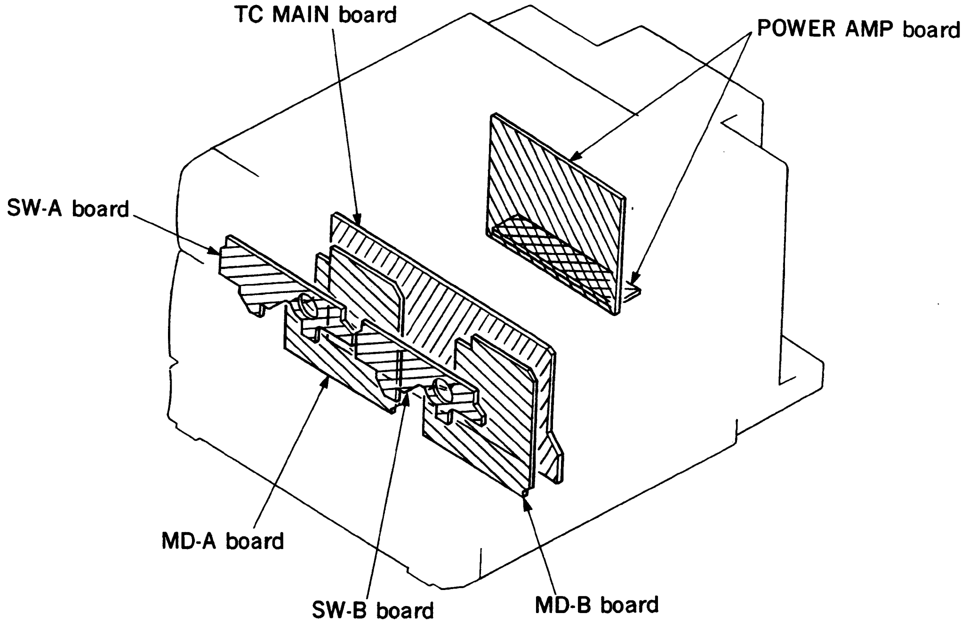
SECTION 5
DIAGRAMS

5-1. SEMICONDUCTOR LEAD LAYOUTS


CD4052BCM
CD4053BCM
CXA1101M
CXA1578M
16
9
1
8
(TOP VIEW)
CD4066BCM
SN74HC32ANS
14
8
1
7
(TOP VIEW)
LB1639
LM393P
8 7 6 5
1 2 3 4
(Top view)
LC7822
30
16
1
15
(Top view)
M50964-256FP
57
37
58
36
72
22
1
21
M51953AL
1 2 3 4 5
M5218AL
M5230L-A
μPC1237HA
1 2 3 4 5 6 7 8
M5229P
20
11
1
10
(Top view)
NJL5165K-B
3
2
4
1
NJU7305L
28
15
1
14
(Top view)
PST572E
1 2 3
1 : Vcc
2 : GND
3 : Out put
RC4558PS
μPC4570G2
8 7 6 5
1 2 3 4
(TOP VIEW)
STK-4152MK2K
1 2
n
TA7272P
1
10
MARKING SIDE VIEW
TA7805S
IN
GND
OUT
TD62C950RF
60
31
1
30
(TOPVIEW)
μPD78011GC
-507-AB8
48
33
49
32
64
17
1
16
DTA114ES
DTC114ES
2SC2603-EF
E C B
RN1402
RN2402
RN2404
2SA1602-F
2SC4154-F
C
B
E
2SA1175-HFE
2SC3623A-LK
letter side
E C B
2SB772-Q
2SD882-P
letter side
E C B
2SB1013-4
2SC1841-PAFAEA
2SD1616A-K
E C B
2SB1094-LK
2SD2012
B C E
2SB1122-S
2SD1622-S
B C E
2SK246-GR
S G D
EC10DS2
anode
cathode
HZS27-2L
HZS30-2L
HZS6C3L
HZS9A2L
UZL-36M
11ES2
cathode
anode
HZ12B2L
UZP-6.2BC
1N4148M
cathode
anode
RBV-602-01
+ ~ ~ −
+ ~ ~ −
UZM5.6X
UZM8.2Z
1SS184
3
1
2
2 3 NC 1
1SS226
3
1
2
2 3 1
1SS352
ANODE
CATHODE
SEL2210S-CD
long
short
anode
cathode
SEL4225C-C
SEL4525C-C
SEL4925A-D
cathode
anode

5-2. CIRCUIT BOARDS LOCATION


POWER board
CONTROL board
TA PANEL board
MAIN board
HP board
TC SW board
TRANSFORMER board


TC MAIN board
POWER AMP board
SW-A board
MD-A board
SW-B board
MD-B board

• Semiconductor Location

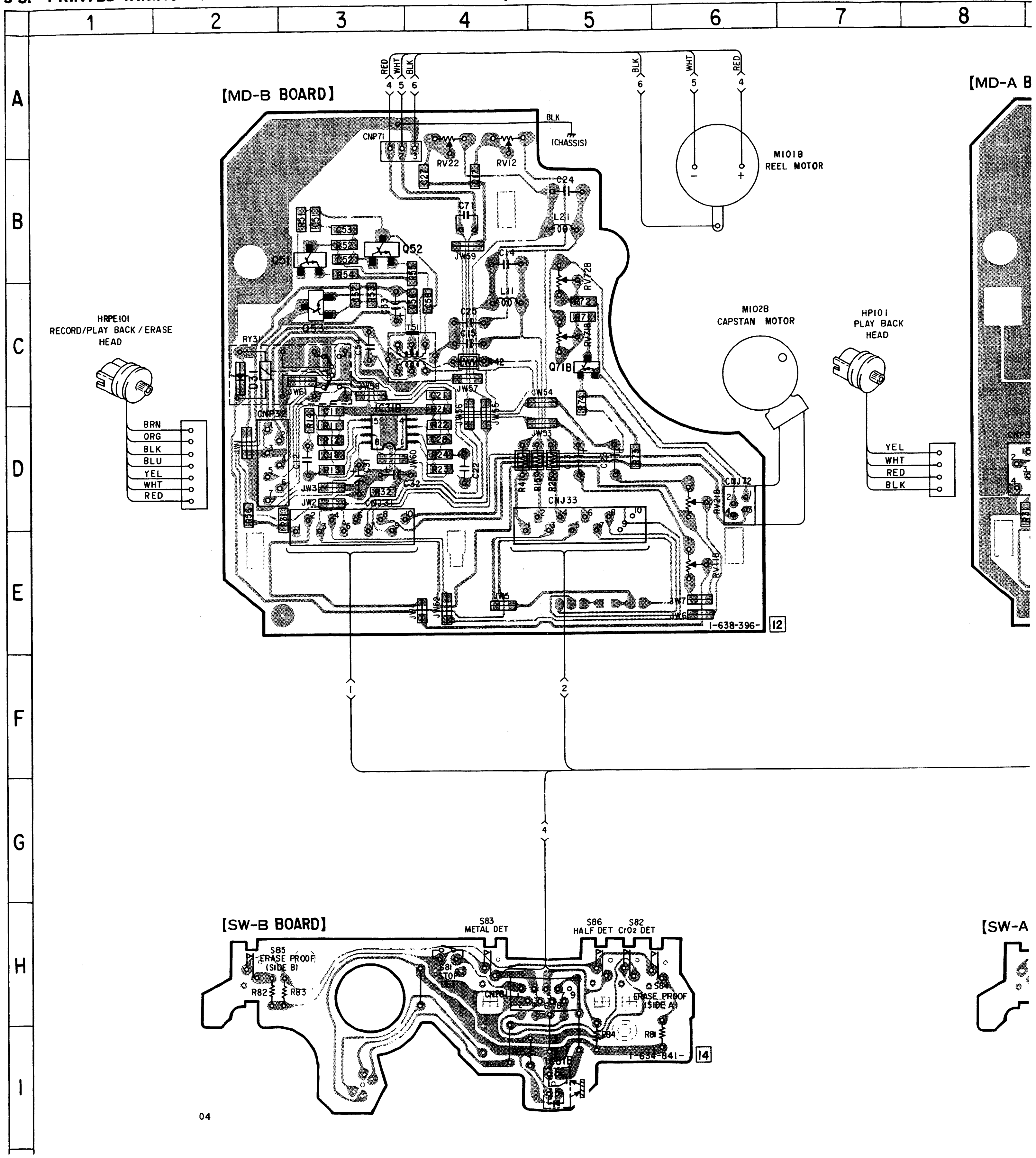
Ref. No.	Location	Ref. No.	Location
D31	C-2	IC401	C-18
D351	H-21	IC402	D-14
D352	H-20	IC403	D-15
D353	H-17	IC404	C-17
D354	H-18	IC405	C-19
D355	H-17	IC406	D-18
D356	H-14		
D357	H-14	Q51	B-3
D358	H-14	Q52	B-3
D359	H-14	Q53	C-3
D401	D-15	Q71A	C-11
D404	D-17	Q71B	C-5
D405	D-18	Q201	D-20
D407	C-15	Q202	D-19
D410	D-18	Q301	E-19
D411	B-17	Q302	C-19
D412	C-17	Q401	C-16
D416	D-18	Q402	C-16
D4001	D-19	Q403	B-15
		Q404	B-15
IC31A	D-9	Q405	B-16
IC31B	D-3	Q407	D-17
IC81A	I-11	Q408	D-19
IC81B	I-5	Q409	C-19
IC201	E-18	Q410	C-20
IC202	E-20	Q411	B-15
IC203	C-21	Q412	D-19
IC204	C-19	Q414	D-18
IC205	D-16	Q415	D-19

Note:

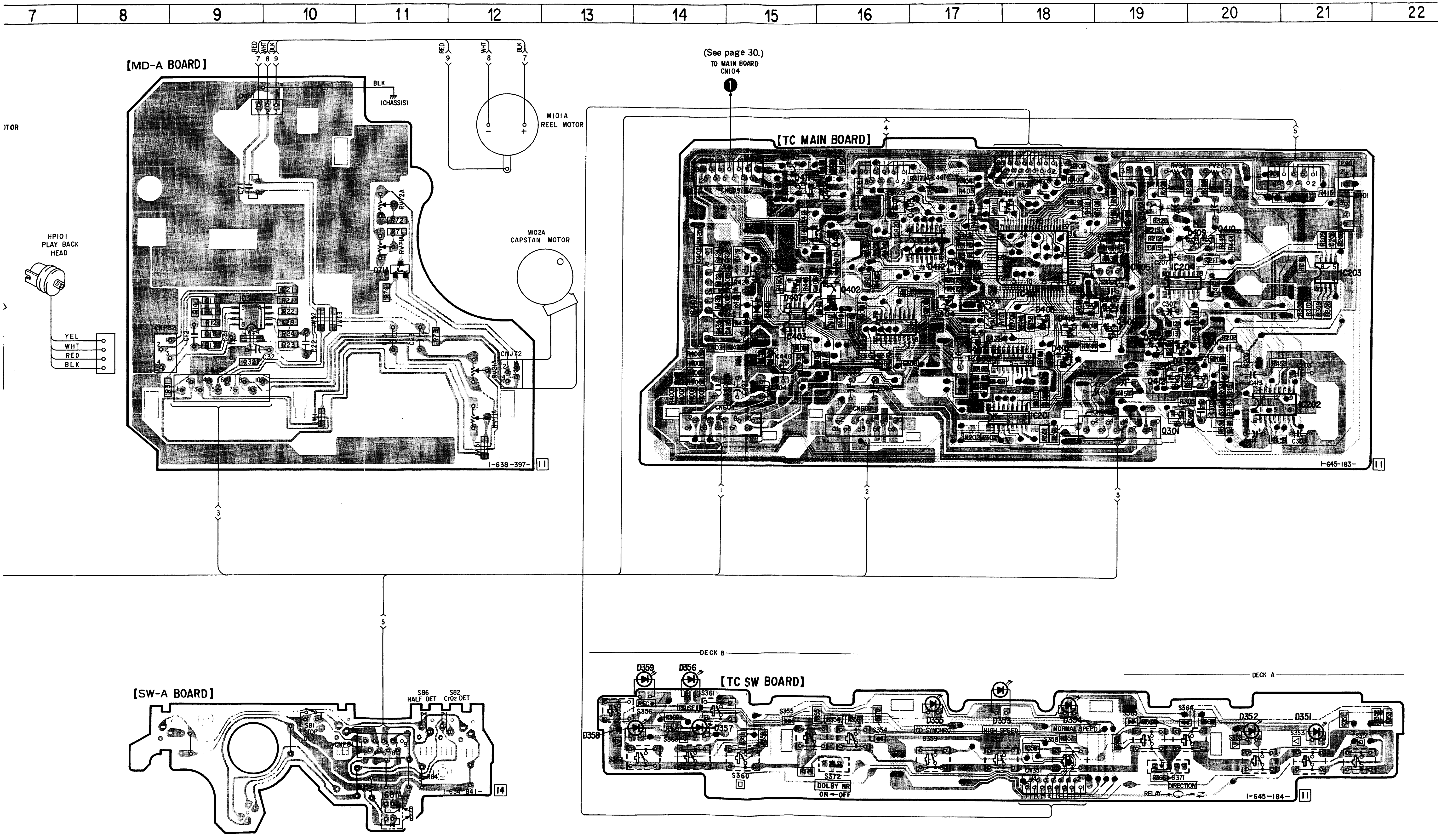
- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ○ ▨ : Pattern of the rear side.

5-3. PRINTED WIRING BOARDS —DECK SECTION—

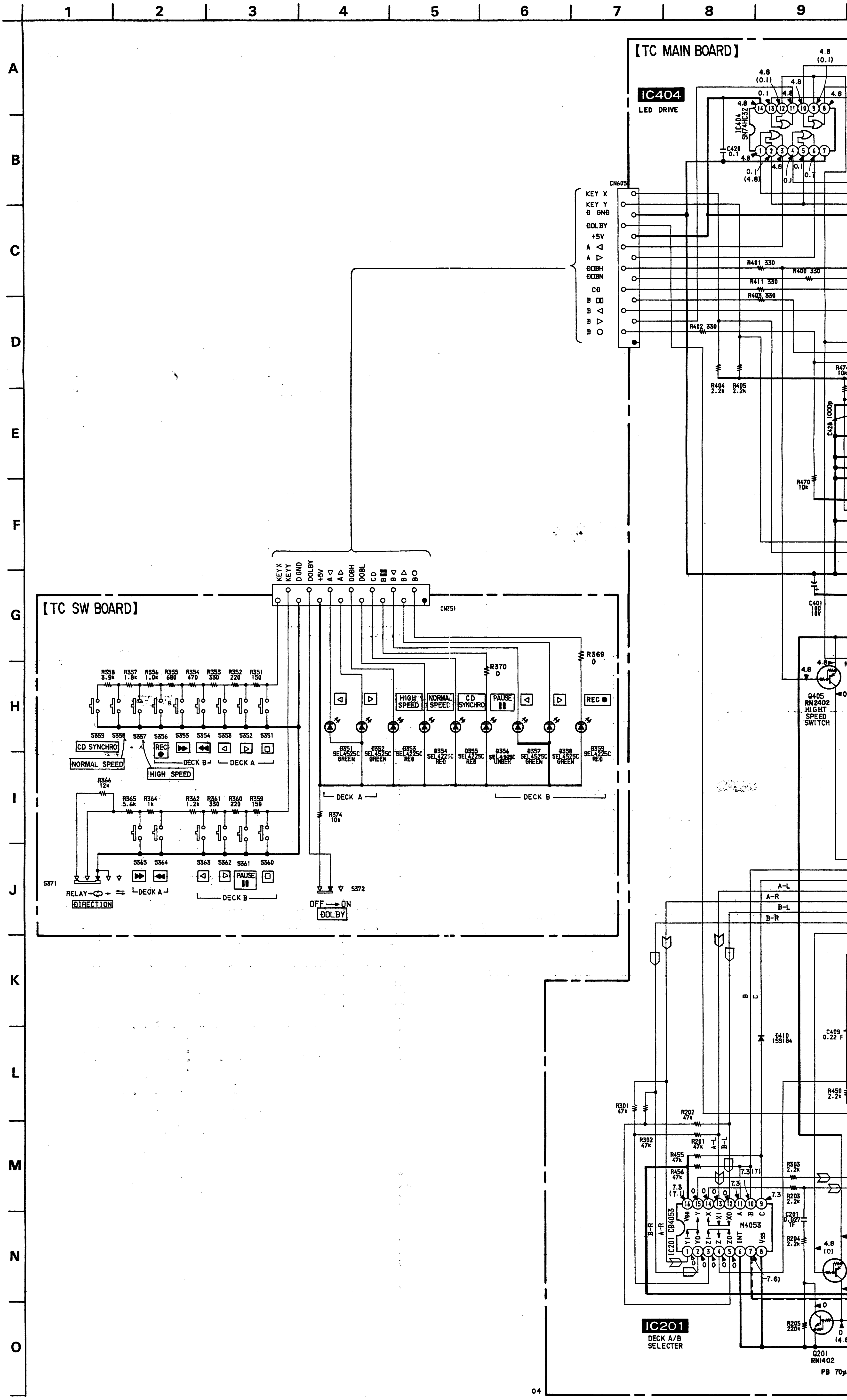
• Refer to page 13 for Semiconductor Lead Layouts.

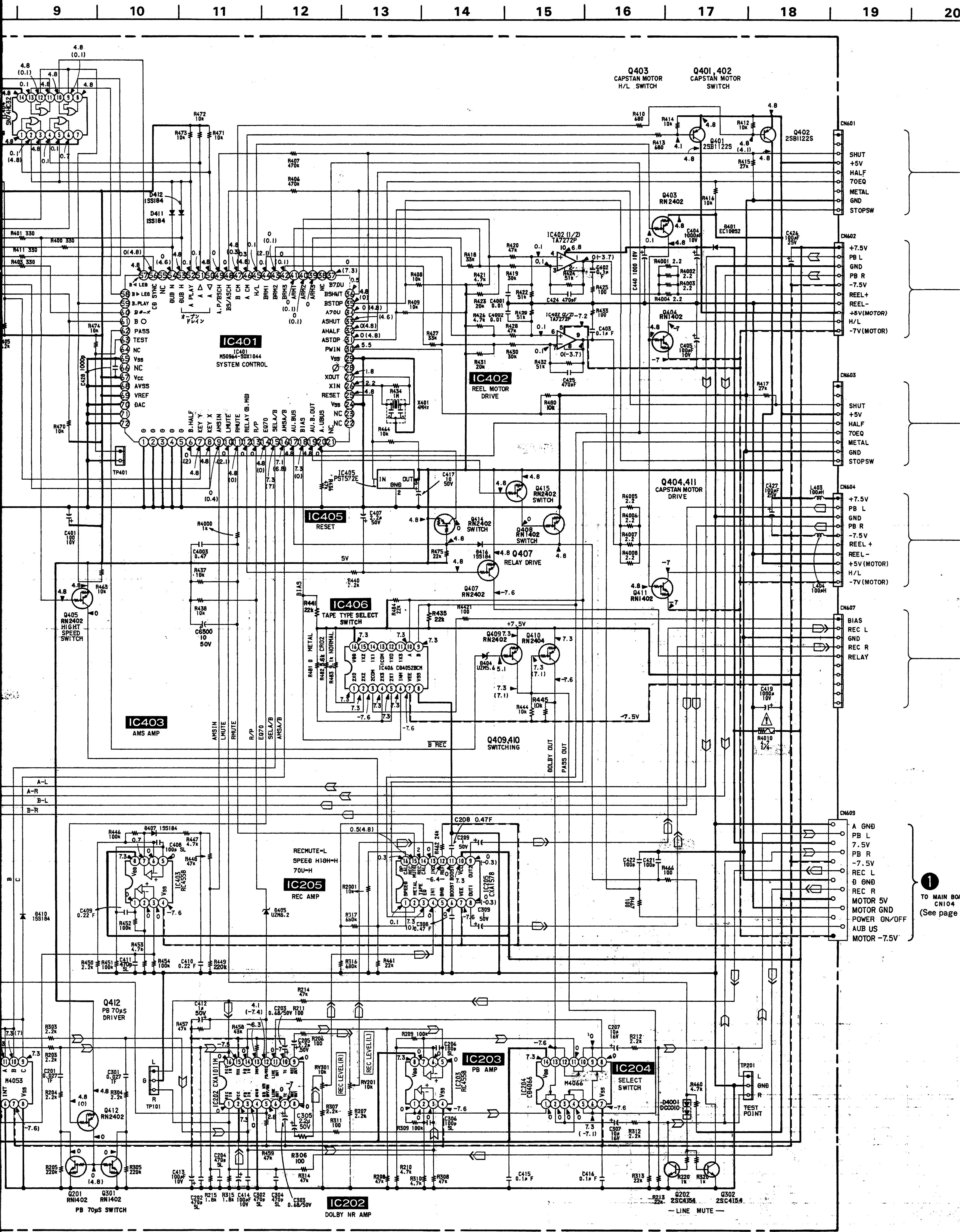

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
[MD-B BOARD]
[MD-A B
RED
WHT
BLK
BLK
(CHASSIS)
CNP71
RV22
RV12
C24
C71
L21
Q51
Q52
Q53
C53
C52
R52
R54
JW59
C14
L11
C25
C15
T51
RV72B
RV71B
Q71B
RY31
D31
JW61
JW58
JW57
JW54
CNP32
IC31B
JW60
JW3
JW2
JW33
CNJ33
CNJ32
RV21B
RV11B
JW5
JW7
JW6
JW52
1-638-396-
12
M101B
REEL MOTOR
M102B
CAPSTAN MOTOR
HRPE101
RECORD/PLAY BACK / ERASE HEAD
HP101
PLAY BACK HEAD
BRN
ORG
BLK
BLU
YEL
WHT
RED
YEL
WHT
RED
BLK
[SW-B BOARD]
[SW-A
S83
METAL DET
S86
HALF DET
S82
CrO2 DET
S85
ERASE PROOF (SIDE B)
S81
STOP
S84
ERASE PROOF (SIDE A)
R82
R83
R81
CN81
1-634-841-
14
04

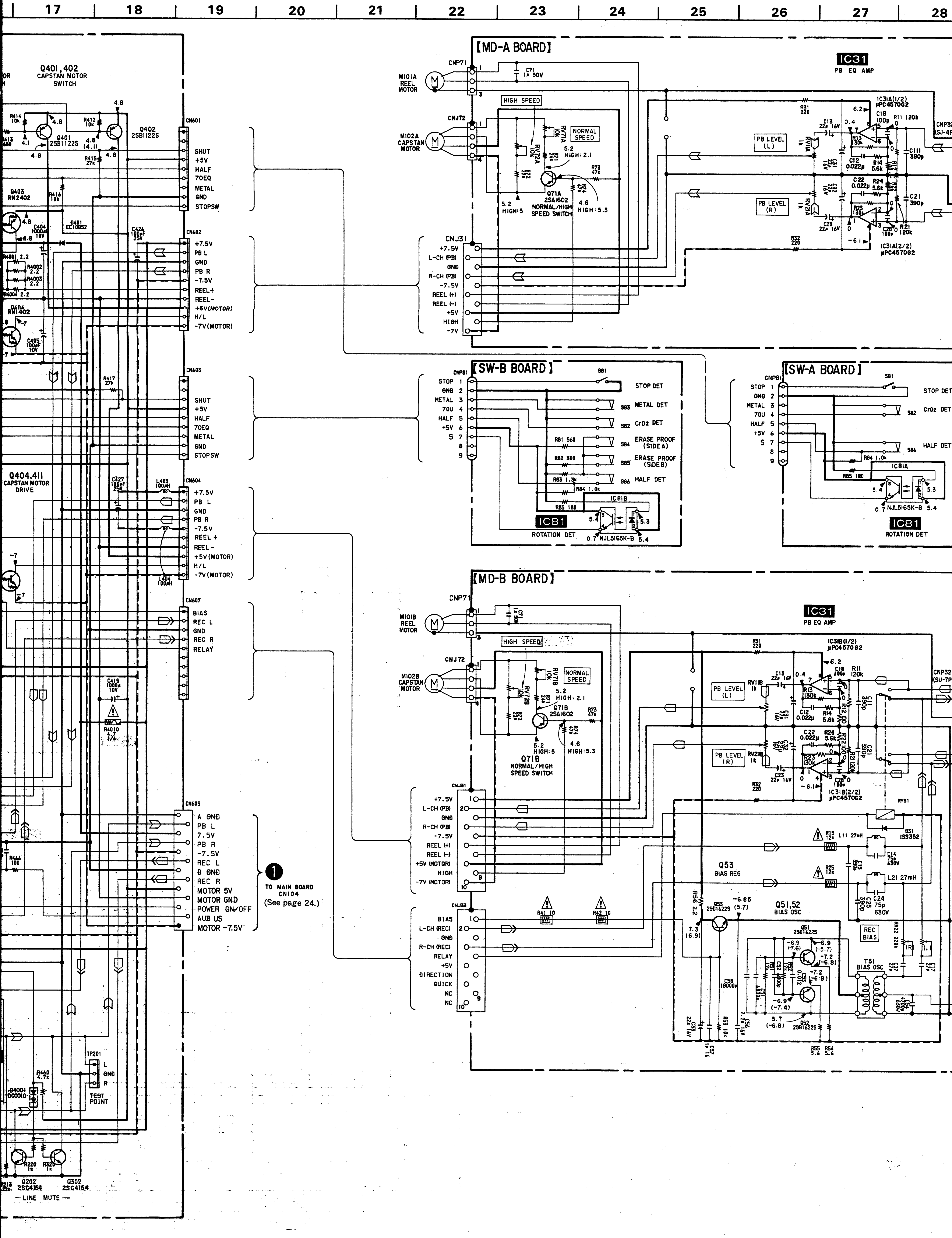
ts.

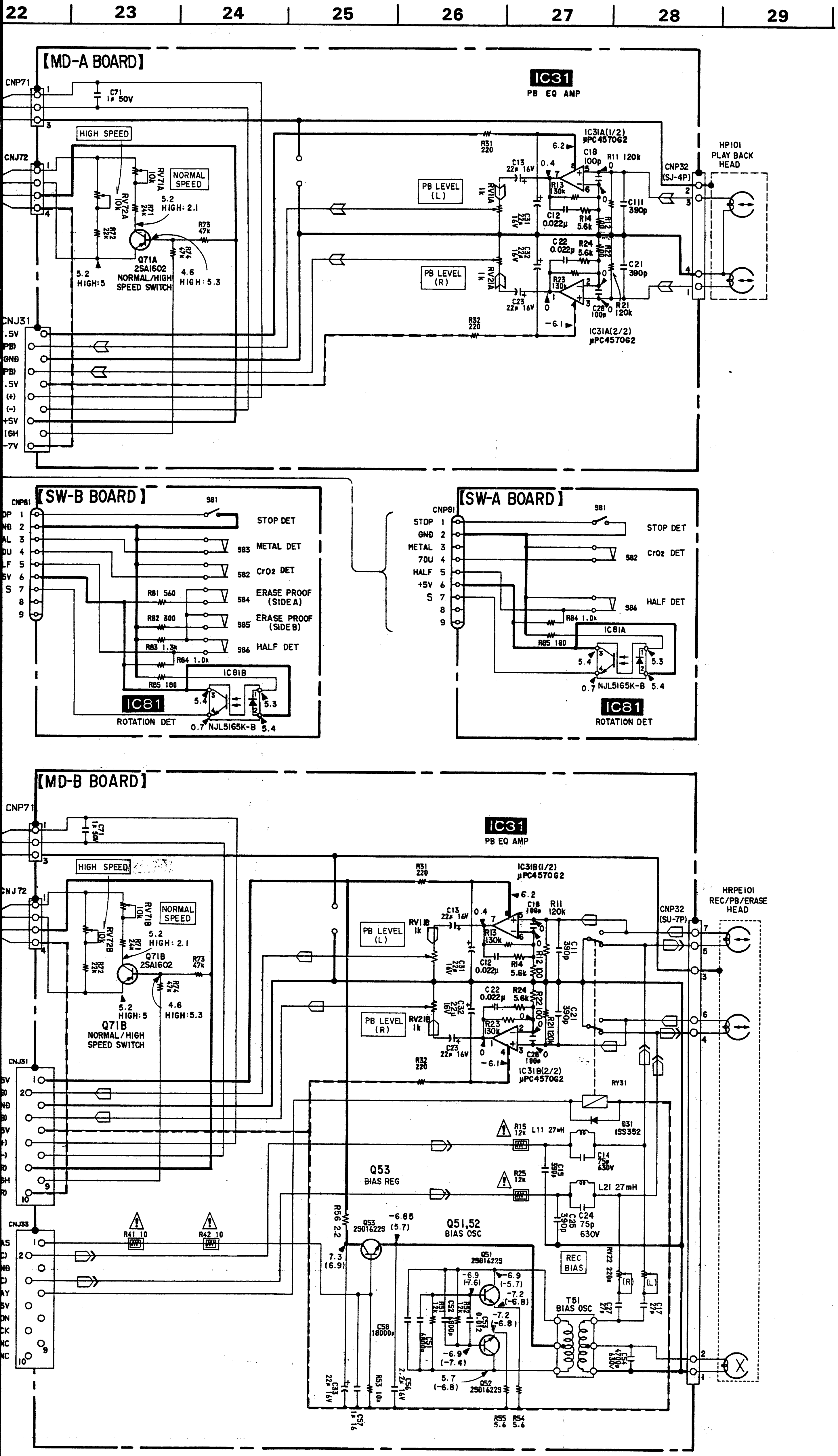

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
TOR
【MD-A BOARD】
RED
WHT
BLK
7 8 9
BLK
(CHASSIS)
CNP71
M101A
REEL MOTOR
M102A
CAPSTAN MOTOR
HP101
PLAY BACK
HEAD
YEL
WHT
RED
BLK
IC31A
CNP32
CNJ31
CNJ72
RV71A
RV72A
Q71A
1-638-397- 11
(See page 30.)
TO MAIN BOARD
CN104
❶
【TC MAIN BOARD】
IC201
IC202
IC203
IC204
Q301
Q402
Q403
Q405
Q409
Q410
CN606
CN607
1-645-183- 11
1
2
3
4
5
【SW-A BOARD】
S86
HALF DET
S82
CrO2 DET
S81
STOP
DET
CNP8
R84
1-634-841- 14
DECK B
DECK A
【TC SW BOARD】
D359
D356
D358
D357
D355
D354
D353
D352
D351
S356
S361
S355
S354
S359
S357
S358
S364
S365
S353
S371
S360
CD SYNCHRO
HIGH SPEED
NORMAL SPEED
S372
DOLBY NR
ON ← OFF
DIRECTION
RELAY
CN351
1-645-184- 11

5-4. SCHEMATIC DIAGRAM —DECK SECTION— • Refer to page 40 for IC Block Diagrams.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
【TC MAIN BOARD】
IC404
LED DRIVE
IC404 SN74HC32
C420 0.1
CN605
KEY X
KEY Y
D GND
DOLBY
+5V
A ◁
A ▷
DOBH
DOBN
CD
B ◫
B ◁
B ▷
B ○
R401 330
R400 330
R411 330
R403 330
R402 330
R404 2.2k
R405 2.2k
C428 1000p
R470 10k
C401 100 10V
Q405 RN2402 HIGHT SPEED SWITCH
KEYX
KEYY
DGND
DOLBY
+5V
A◁
A▷
DOBH
DOBL
CD
B◫
B◁
B▷
B○
CN251
【TC SW BOARD】
R358 3.9k
R357 1.8k
R356 1.0k
R355 680
R354 470
R353 330
R352 220
R351 150
S359
S358
S357
S356
S355
S354
S353
S352
S351
CD SYNCHRO
NORMAL SPEED
HIGH SPEED
REC ●
DECK B
DECK A
R366 12k
R365 5.6k
R364 1k
R362 1.2k
R361 330
R360 220
R359 150
S365
S364
S363
S362
S361
S360
PAUSE
S371
RELAY
DIRECTION
R370 0
R369 0
HIGH SPEED
NORMAL SPEED
CD SYNCHRO
PAUSE
REC ●
D351 SEL4525C GREEN
D352 SEL4525C GREEN
D353 SEL4225C RED
D354 SEL4225C RED
D355 SEL4225C RED
D356 SEL4925C UMBER
D357 SEL4525C GREEN
D358 SEL4525C GREEN
D359 SEL4225C RED
DECK A
DECK B
R374 10k
S372
OFF → ON
DOLBY
A-L
A-R
B-L
B-R
D410 1SS184
C409 0.22
R450 2.2k
R301 47k
R302 47k
R202 47k
R201 47k
R455 47k
R456 47k
IC201 CD4053
M4053
R303 2.2k
R203 2.2k
C201 0.027 TF
R204 2.2k
R205 220k
Q201 RN1402
IC201
DECK A/B SELECTER
PB 70μ
04


9
10
11
12
13
14
15
16
17
18
19
20
Q403 CAPSTAN MOTOR H/L SWITCH
Q401,402 CAPSTAN MOTOR SWITCH
Q401 2SB1122S
Q402 2SB1122S
Q403 RN2402
Q404 RN1402
IC401 M50964-50X1044 SYSTEM CONTROL
IC402 (1/2) TA7272P
IC402 (2/2) TA7272P
IC402 REEL MOTOR DRIVE
IC405 PST572E
IC405 RESET
Q414 RN2402 SWITCH
Q415 RN2402 SWITCH
Q408 RN1402 SWITCH
Q407 RELAY DRIVE
Q407 RN2402
Q404,411 CAPSTAN MOTOR DRIVE
Q411 RN1402
Q405 RN2402 HIGHT SPEED SWITCH
IC406 TAPE TYPE SELECT SWITCH
IC406 CD4052BCM
Q409 RN2402
Q410 RN2404
Q409,410 SWITCHING
IC403 AMS AMP
IC403 RC4558
IC205 REC AMP
IC205 CXA1578
RECMUTE=L
SPEED H10H=H
70U=H
Q412 PB 70μS DRIVER
Q412 RN2402
Q201 RN1402
Q301 RN1402
PB 70μS SWITCH
IC202 CXA1101M
IC202 DOLBY NR AMP
IC203 PB AMP
IC203 RC4558
IC204 SELECT SWITCH
IC204 CD4066
M4053
TP101
TP201 TEST POINT
Q202 2SC4154
Q302 2SC4154
— LINE MUTE —
CN601
SHUT
+5V
HALF
70EQ
METAL
GND
STOPSW
CN602
+7.5V
PB L
GND
PB R
-7.5V
REEL+
REEL-
+5V(MOTOR)
H/L
-7V(MOTOR)
CN603
SHUT
+5V
HALF
70EQ
METAL
GND
STOPSW
CN604
+7.5V
PB L
GND
PB R
-7.5V
REEL +
REEL -
+5V(MOTOR)
H/L
-7V(MOTOR)
CN607
BIAS
REC L
GND
REC R
RELAY
CN609
A GND
PB L
7.5V
PB R
-7.5V
REC L
D GND
REC R
MOTOR 5V
MOTOR GND
POWER ON/OFF
AUB US
MOTOR -7.5V
1 TO MAIN BO CN104 (See page
DOLBY OUT
PASS OUT
B REC
REC LEVEL(R)
REC LEVEL(L)
A-L
A-R
B-L
B-R
X401 4MHz
TP401


17
18
19
20
21
22
23
24
25
26
27
28
Q401,402
CAPSTAN MOTOR
SWITCH
Q402
2SB1122S
Q401
2SB1122S
Q403
RN2402
Q404
RN1402
D401
EC10QS2
C404
1000μ
10V
C405
100μF
10V
C426
100μF
25V
R417
27k
R414
10k
R412
10k
R415
27k
R416
10k
R4001 2.2
R4002 2.2
R4003 2.2
R4004 2.2
Q404,411
CAPSTAN MOTOR
DRIVE
C427
100μF
25V
L403
100μH
L404
100μH
C419
1000μ
10V
R4010
4.7
1/4W
R466
100
TP201
L
GND
R
TEST
POINT
R460
4.7k
D4001
DCC010
R220
1k
R320
1k
Q202
2SC4154
Q302
2SC4154
LINE MUTE
CN601
SHUT
+5V
HALF
70EQ
METAL
GND
STOPSW
CN602
+7.5V
PB L
GND
PB R
-7.5V
REEL+
REEL-
+5V(MOTOR)
H/L
-7V(MOTOR)
CN603
SHUT
+5V
HALF
70EQ
METAL
GND
STOPSW
CN604
+7.5V
PB L
GND
PB R
-7.5V
REEL +
REEL -
+5V(MOTOR)
H/L
-7V(MOTOR)
CN607
BIAS
REC L
GND
REC R
RELAY
CN609
A GND
PB L
7.5V
PB R
-7.5V
REC L
D GND
REC R
MOTOR 5V
MOTOR GND
POWER ON/OFF
AUB US
MOTOR -7.5V
1
TO MAIN BOARD
CN104
(See page 24.)
【MD-A BOARD】
CNP71
M101A
REEL
MOTOR
C71
1μ 50V
CNJ72
M102A
CAPSTAN
MOTOR
HIGH SPEED
RV71A
10k
NORMAL
SPEED
RV72A
10k
R72
22k
R71
24k
R73
47k
R74
47k
5.2
HIGH: 2.1
Q71A
2SA1602
NORMAL/HIGH
SPEED SWITCH
5.2
HIGH:5
4.6
HIGH:5.3
CNJ31
+7.5V
L-CH (PB)
GND
R-CH (PB)
-7.5V
REEL (+)
REEL (-)
+5V
HIGH
-7V
IC31
PB EQ AMP
IC31A(1/2)
μPC4570G2
IC31A(2/2)
μPC4570G2
R31
220
R32
220
PB LEVEL
(L)
PB LEVEL
(R)
RV11A
1k
RV21A
1k
C13
22μ 16V
C23
22μ 16V
C12
0.022μ
C22
0.022μ
R13
130k
R23
130k
R14
5.6k
R24
5.6k
C18
100p
C28
100p
R11 120k
R21
120k
C111
390p
C21
390p
CNP32
(SJ-4P)
6.2
0.4
-6.1
【SW-B BOARD】
CNP81
STOP
GND
METAL
70U
HALF
+5V
S
S81
STOP DET
S83
METAL DET
S82
CrO2 DET
S84
ERASE PROOF
(SIDE A)
S85
ERASE PROOF
(SIDE B)
S86
HALF DET
R81 560
R82 300
R83 1.3k
R84 1.0k
R85 180
IC81B
IC81
ROTATION DET
0.7 NJL5165K-B
5.4
5.3
【SW-A BOARD】
CNP81
STOP
GND
METAL
70U
HALF
+5V
S
S81
STOP DET
S82
CrO2 DET
S86
HALF DET
R84 1.0k
R85 180
IC81A
5.4
5.3
0.7 NJL5165K-B
IC81
ROTATION DET
【MD-B BOARD】
CNP71
M101B
REEL
MOTOR
C71
1μ 50V
CNJ72
M102B
CAPSTAN
MOTOR
HIGH SPEED
RV71B
10k
NORMAL
SPEED
RV72B
10k
R72
22k
R71
24k
R73
47k
R74
47k
5.2
HIGH: 2.1
Q71B
2SA1602
5.2
HIGH:5
4.6
HIGH:5.3
Q71B
NORMAL/HIGH
SPEED SWITCH
CNJ31
+7.5V
L-CH (PB)
GND
R-CH (PB)
-7.5V
REEL (+)
REEL (-)
+5V (MOTOR)
HIGH
-7V (MOTOR)
CNJ33
BIAS
L-CH (REC)
GND
R-CH (REC)
RELAY
+5V
DIRECTION
QUICK
NC
NC
IC31
PB EQ AMP
IC31B(1/2)
μPC4570G2
IC31B(2/2)
μPC4570G2
R31
220
R32
220
PB LEVEL
(L)
PB LEVEL
(R)
RV11B
1k
RV21B
1k
C13
22μ 16V
C23
22μ 16V
C12
0.022μ
C22
0.022μ
R13
130k
R23
130k
R14
5.6k
R24
5.6k
C18
100p
C28
100p
R11
120k
R21
120k
C11
390p
C21
390p
CNP32
(SU-7P)
RY31
D31
1SS352
R15
12k
L11 27mH
C14
75p
630V
R25
12k
L21 27mH
C24
75p
630V
Q53
BIAS REG
R56 2.2
Q53
2SB1622S
-6.85
(5.7)
7.3
(6.9)
Q51,52
BIAS OSC
Q51
2SB1622S
Q52
2SB1622S
-6.9
(-7.6)
-6.9
(-5.7)
-7.2
(-6.8)
-7.2
(-6.8)
-6.9
(-7.4)
5.7
(-6.8)
C58
18000p
R41 10
R42 10
REC
BIAS
RV22 220k
T51
BIAS OSC
C27
27p
C17
27p
C54
4700p
630V
C33
22μ 16V
C57
1μ
R53 10k
C56
2.2μ 16V
R55
5.6
R54
5.6


22
23
24
25
26
27
28
29
【MD-A BOARD】
IC31
PB EQ AMP
CNP71
C71 1μ 50V
HIGH SPEED
CNJ72
RV71A 10k
NORMAL SPEED
RV72A 10k
5.2
HIGH: 2.1
R73 47k
R74 47k
Q71A 2SA1602
NORMAL/HIGH SPEED SWITCH
5.2 HIGH:5
4.6 HIGH:5.3
CNJ31
IC31A(1/2) μPC4570G2
IC31A(2/2) μPC4570G2
R31 220
R32 220
PB LEVEL (L)
PB LEVEL (R)
RV11A 1k
RV21A 1k
C18 100p
R11 120k
C111 390p
C21 390p
R21 120k
C28 100p
CNP32 (SJ-4P)
HP101 PLAY BACK HEAD
【SW-B BOARD】
CNP81
S81 STOP DET
S83 METAL DET
S82 CrO2 DET
S84 ERASE PROOF (SIDE A)
S85 ERASE PROOF (SIDE B)
S86 HALF DET
R81 560
R82 300
R83 1.3k
R84 1.0k
R85 180
IC81B
IC81
ROTATION DET
NJL5165K-B
【SW-A BOARD】
STOP
GND
METAL
70U
HALF
+5V
S
S81 STOP DET
S82 CrO2 DET
S86 HALF DET
IC81A
NJL5165K-B
IC81
ROTATION DET
【MD-B BOARD】
IC31
PB EQ AMP
IC31B(1/2) μPC4570G2
IC31B(2/2) μPC4570G2
RV71B 10k
RV72B 10k
Q71B 2SA1602
Q71B NORMAL/HIGH SPEED SWITCH
PB LEVEL (L)
PB LEVEL (R)
RV11B 1k
RV21B 1k
CNP32 (SU-7P)
HRPE101 REC/PB/ERASE HEAD
RY31
D31 1SS352
R15 12k
L11 27mH
R25 12k
L21 27mH
C14 75p 630V
C24 75p 630V
Q53 BIAS REG
Q53 2SD1622S
Q51,52 BIAS OSC
Q51 2SB1622S
Q52 2SB1622S
REC BIAS
RV22 220k
T51 BIAS OSC
CNJ33
R41 10
R42 10
R56 2.2
R53 10k
R55 5.6
R54 5.6
C58 18000p
C57 1μ 16
-6.85 (5.7)
7.3 (6.9)
-6.9 (-7.6)
-6.9 (-5.7)
-7.2 (-6.8)
5.7 (-6.8)

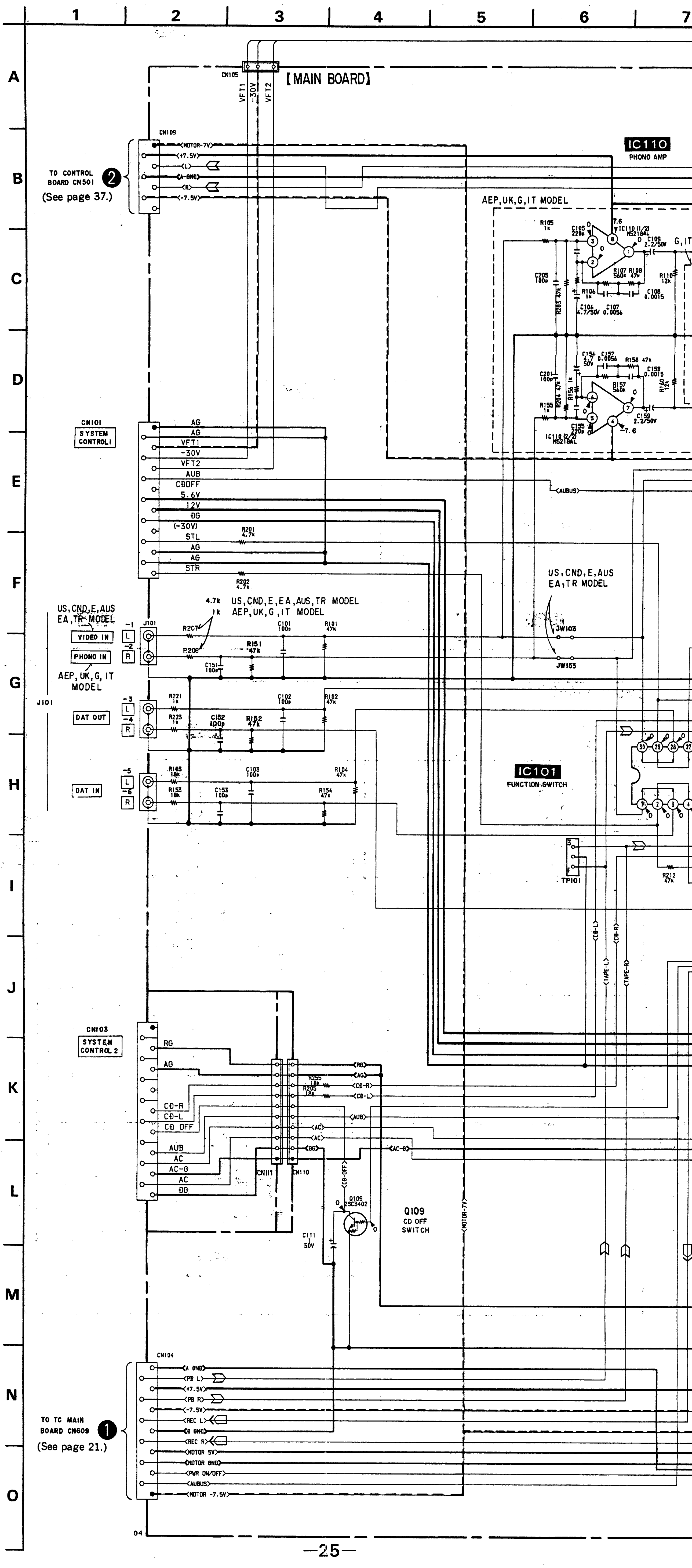
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬ : B+ Line
- ▬ ▬ : B– Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark: PLAY
  ( ): REC
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⊐ : PB (DECK A)
  ▷ : PB (DECK B)
  ▷〉 : REC (DECK B)

5-5. SCHEMATIC DIAGRAM —MAIN SECTION— • Refer to page 40 for IC Block Diagrams


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CN105
VFT1
-30V
VFT2
【MAIN BOARD】
CN109
<MOTOR-7V>
<+7.5V>
<L>
<A-GND>
<R>
<-7.5V>
TO CONTROL BOARD CN501
❷
(See page 37.)
IC110
PHONO AMP
AEP,UK,G,IT MODEL
R105 1k
C105 220p
7.6
IC110 (1/2) M5218AL
C109 2.2/50V
G,IT
C205 100p
R203 47k
R106 1k
R107 560k
R108 47k
R110 12k
C108 0.0015
C106 4.7/50V
C107 0.0056
C156 4.7 50V
C157 0.0056
R158 47k
C158 0.0015
C201 100p
R204 47k
R156 1k
R157 560k
R160 12k
R155 1k
C155 220p
C159 2.2/50V
IC110 (2/2) M5218AL
-7.6
<AUBUS>
CN101
SYSTEM CONTROL1
AG
AG
VFT1
-30V
VFT2
AUB
CDOFF
5.6V
12V
DG
(-30V)
STL
AG
AG
STR
R201 4.7k
R202 4.7k
US,CND,E,AUS EA,TR MODEL
JW103
JW153
4.7k US,CND,E,EA,AUS,TR MODEL
1k AEP,UK,G,IT MODEL
US,CND,E,AUS EA,TR MODEL
VIDEO IN
PHONO IN
AEP, UK, G, IT MODEL
J101
-1
-2
L
R
R207
R208
R151 47k
C151 100p
C101 100p
R101 47k
-3
-4
DAT OUT
R221 1k
R223 1k
C152 100p
R152 47k
C102 100p
R102 47k
-5
-6
DAT IN
R103 18k
R153 18k
C153 100p
C103 100p
R104 47k
R154 47k
IC101
FUNCTION SWITCH
TP101
R212 47k
<CD-L>
<CD-R>
<TAPE-L>
<TAPE-R>
CN103
SYSTEM CONTROL 2
RG
AG
CD-R
CD-L
CD OFF
AUB
AC
AC-G
AC
DG
CN111
CN110
<RG>
<AG>
R255 18k
R205 18k
<CD-R>
<CD-L>
<AUB>
<AC>
<AC>
<DG>
<AC-G>
<CD-OFF>
Q109 2SC3402
Q109
CD OFF SWITCH
C111 1 50V
<MOTOR-7V>
CN104
<A GND>
<PB L>
<+7.5V>
<PB R>
<-7.5V>
<REC L>
<D GND>
<REC R>
<MOTOR 5V>
<MOTOR GND>
<PWR ON/OFF>
<AUBUS>
<MOTOR -7.5V>
TO TC MAIN BOARD CN609
❶
(See page 21.)
04

Note:

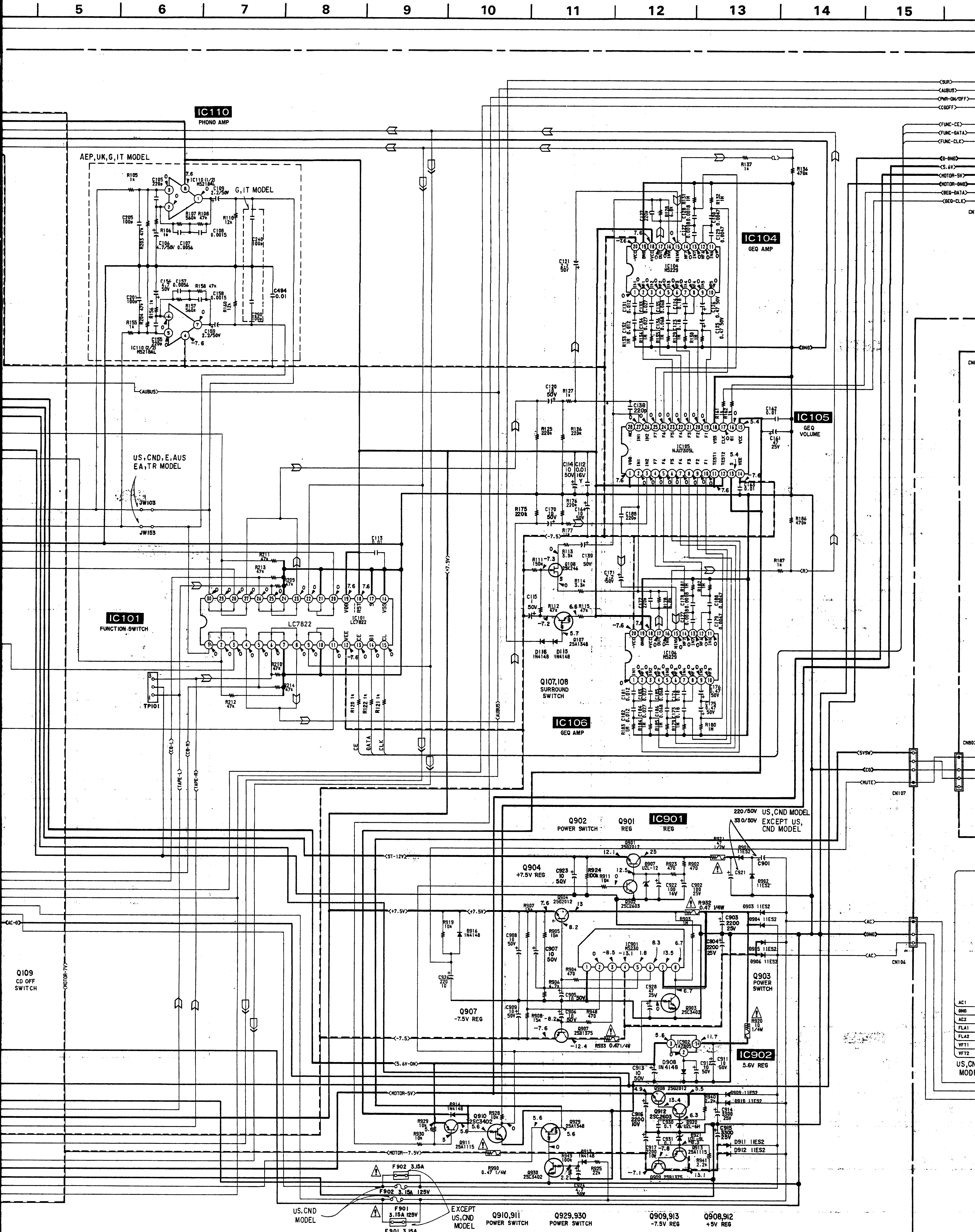
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

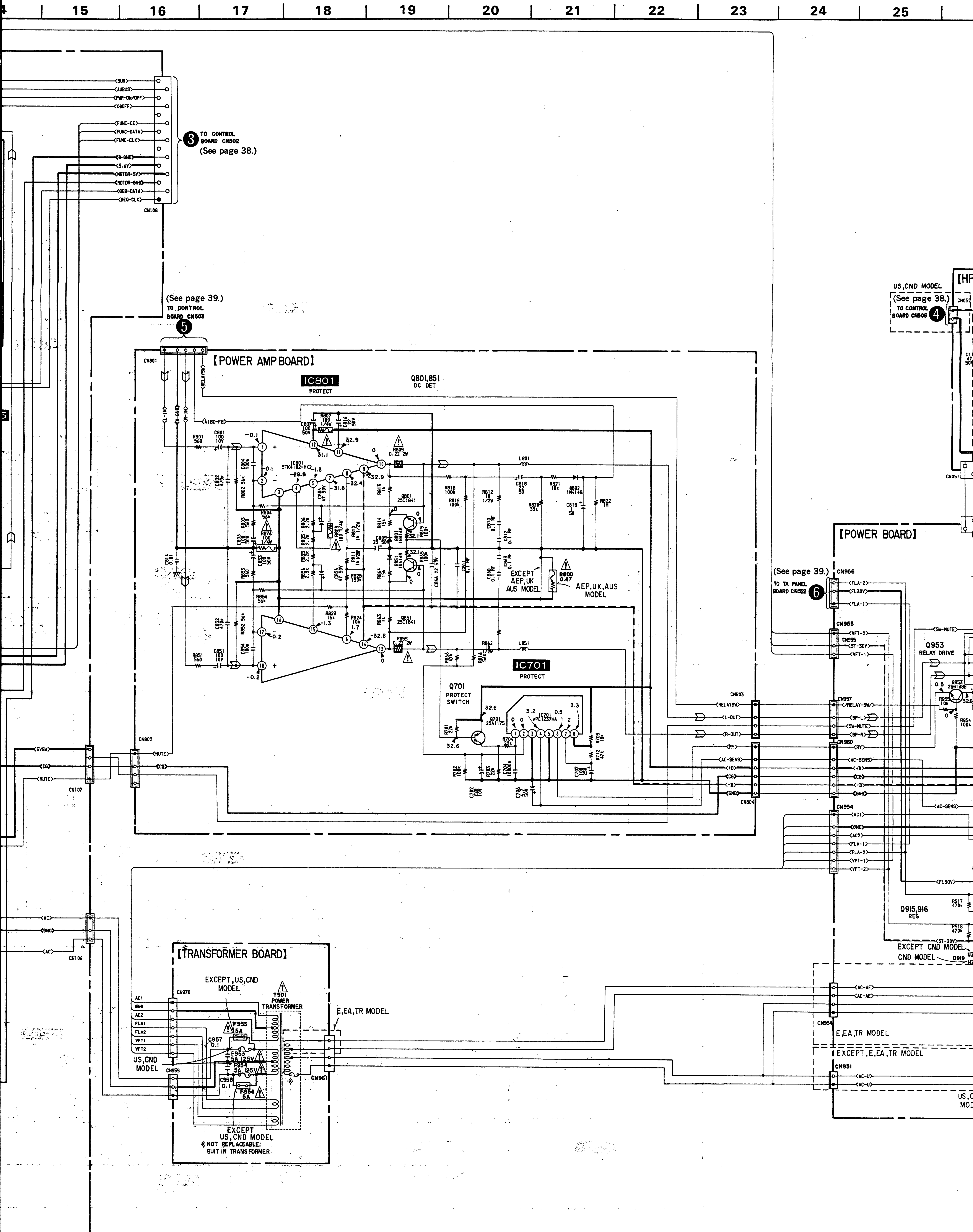
- ▬▬ : B+ Line
- ▬ ▬ ▬ : B– Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⊐> : PB (DECK A)
  ⊐» : REC (DECK B)

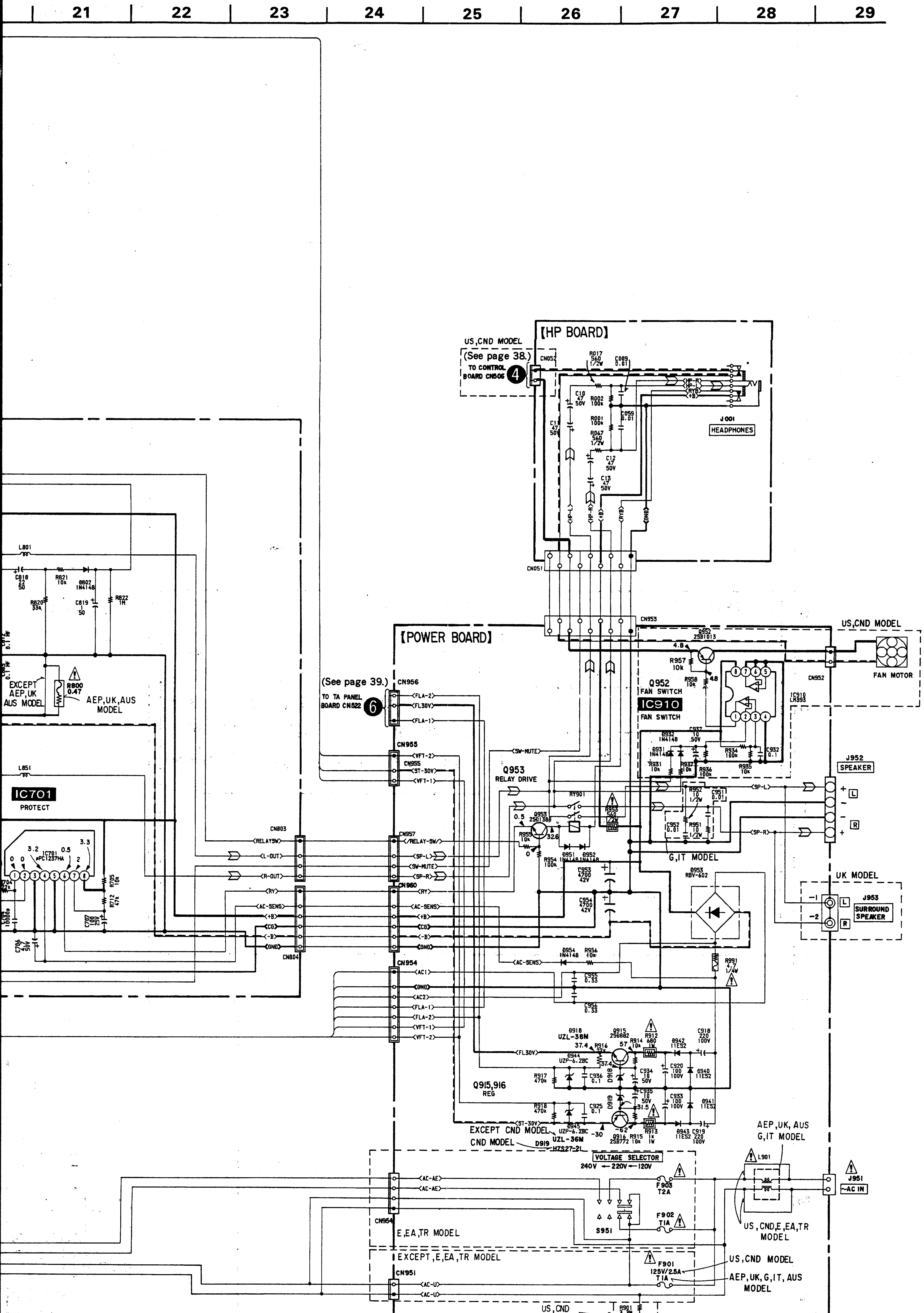
- CND: Canadian model
- G: Germany model
- IT: Italian model
- AUS: Australian model
- EA: Saudi Arabia model
- TR: Tourist model

r to page 40 for IC Block Diagrams

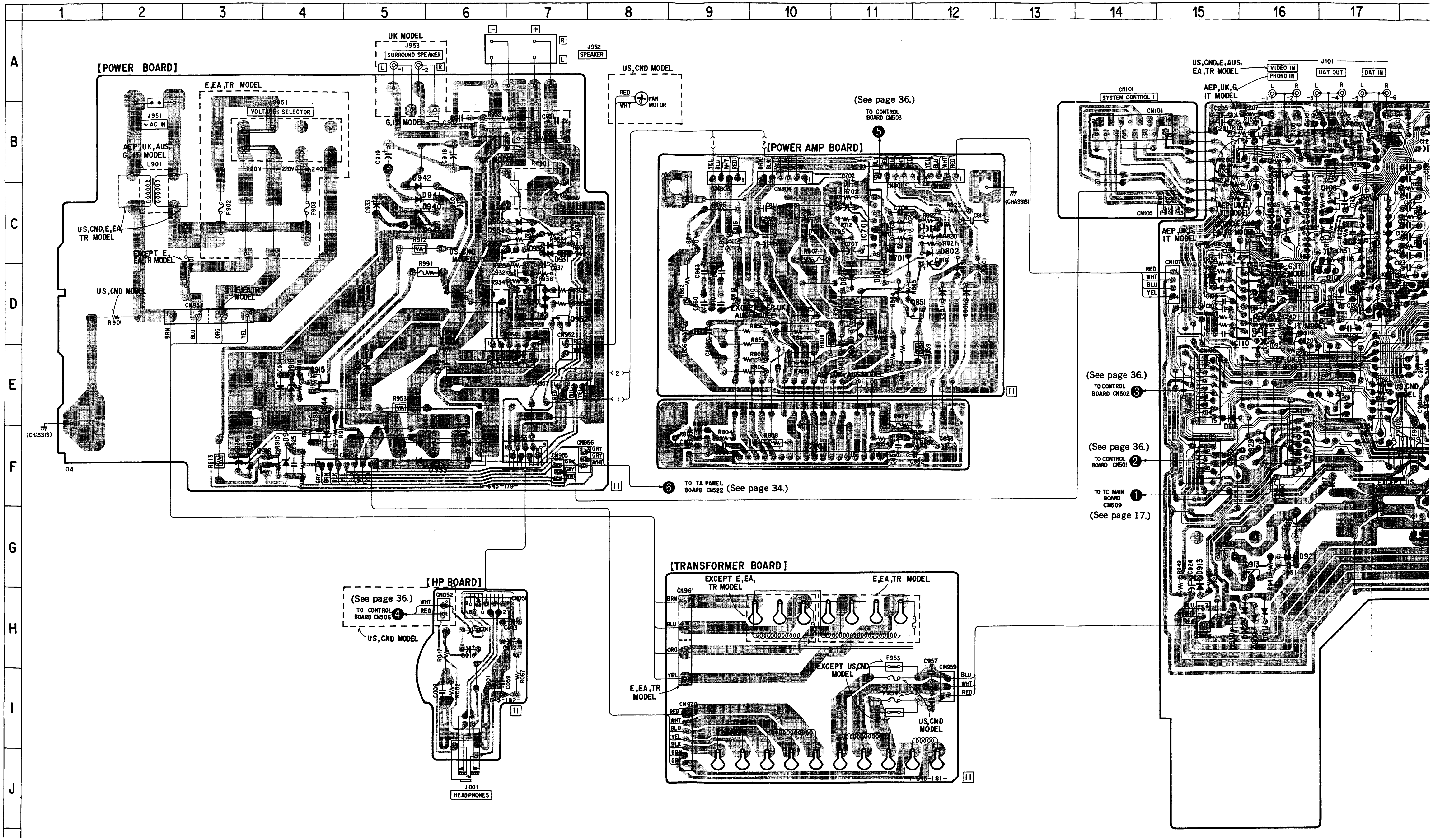


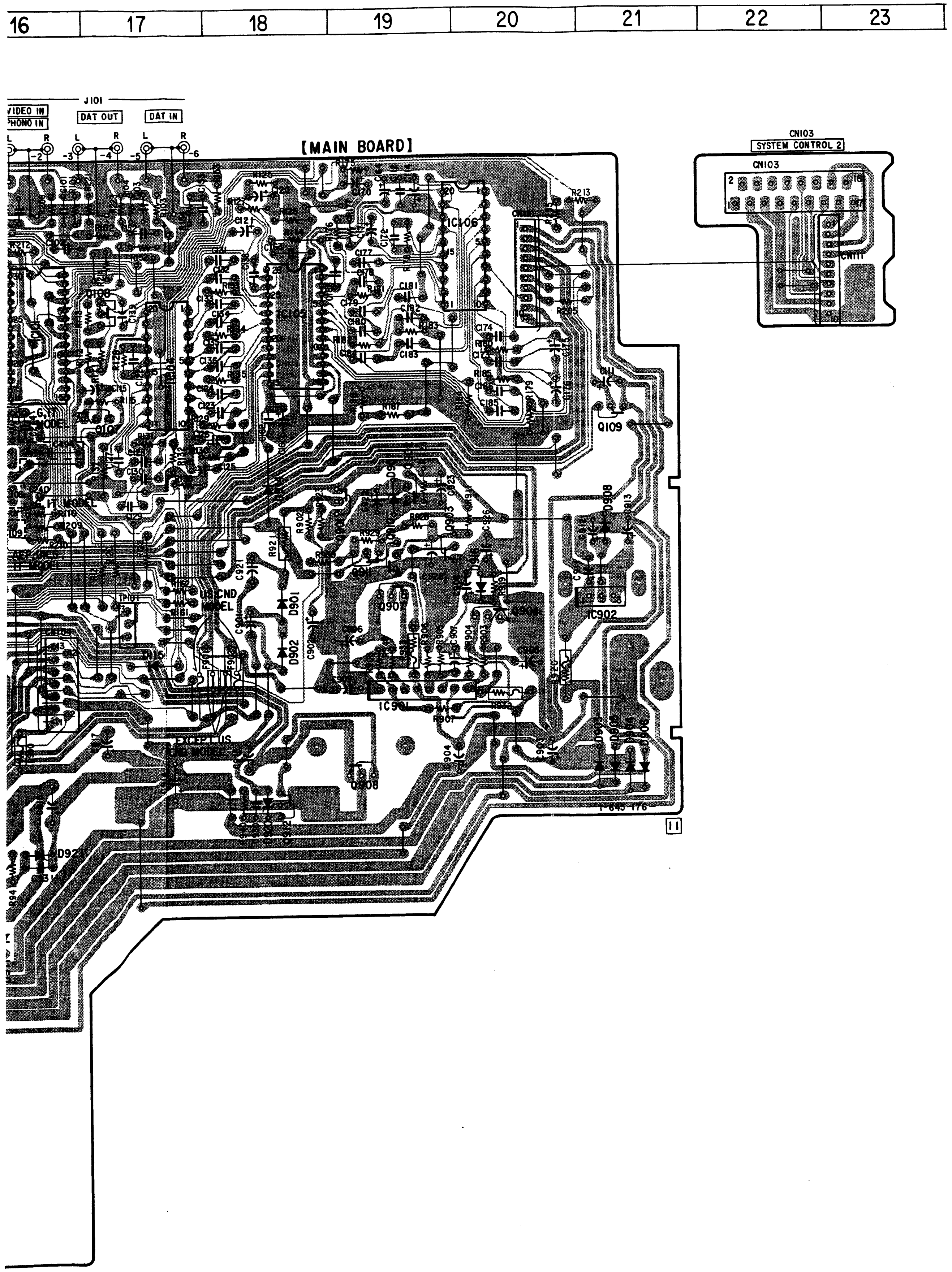
5
6
7
8
9
10
11
12
13
14
15
IC110
PHONO AMP
AEP,UK,G,IT MODEL
G,IT MODEL
US,CND,E,AUS
EA,TR MODEL
JW103
JW153
IC101
FUNCTION SWITCH
LC7822
TP101
IC104
GEQ AMP
IC105
GEQ
VOLUME
NJU7305L
Q107,108
SURROUND
SWITCH
IC106
GEQ AMP
M5229
(AUBUS)
CE
DATA
CLK
(CD-L)
(CD-R)
(TAPE-L)
(TAPE-R)
(+7.5V)
(MOTOR-7V)
Q109
CD OFF
SWITCH
(SUR)
(AUBUS)
(PWR-ON/OFF)
(CDOFF)
(FUNC-CE)
(FUNC-DATA)
(FUNC-CLK)
(D-GND)
(5.6V)
(MOTOR-5V)
(MOTOR-GND)
(GEQ-DATA)
(GEQ-CLK)
(SVSW)
(CD)
(MUTE)
CN107
Q902
POWER SWITCH
Q901
REG
IC901
REG
220/50V US,CND MODEL
330/50V EXCEPT US,
CND MODEL
Q904
+7.5V REG
(ST-12V)
IC901
M5230
Q903
POWER
SWITCH
(AC)
(GND)
(AC)
CN106
Q907
-7.5V REG
(-7.5)
(5.6V-ON)
(MOTOR-5V)
(MOTOR--7.5V)
IC902
5.6V REG
TA7805
D911 11ES2
D912 11ES2
F902 3.15A
F902 3.15A 125V
F901
3.15A 125V
F901 3.15A
US,CND
MODEL
EXCEPT
US,CND
MODEL
Q910,911
POWER SWITCH
Q929,930
POWER SWITCH
Q909,913
-7.5V REG
Q908,912
+5V REG
US,CN
MODI


15
16
17
18
19
20
21
22
23
24
25
TO CONTROL BOARD CN502 (See page 38.)
CN108
(See page 39.) TO CONTROL BOARD CN503
【POWER AMP BOARD】
IC801 PROTECT
Q801,851 DC DET
IC801 STK4182-MK2
Q801 2SC1841
Q851 2SC1841
EXCEPT AEP,UK AUS MODEL
R800 0.47
AEP,UK,AUS MODEL
IC701 PROTECT
Q701 PROTECT SWITCH
Q701 2SA1175
IC701 μPC1237HA
CN801
CN802
CN803
CN804
CN107
CN106
US,CND MODEL (See page 38.) TO CONTROL BOARD CN506
【HP
(See page 39.) TO TA PANEL BOARD CN522
【POWER BOARD】
CN956
CN955
CN957
CN960
CN954
CN951
Q953 RELAY DRIVE
Q915,916 REG
EXCEPT CND MODEL
CND MODEL
【TRANSFORMER BOARD】
CN970
CN959
CN961
EXCEPT,US,CND MODEL
T901 POWER TRANSFORMER
E,EA,TR MODEL
US,CND MODEL
F953 5A
F954 5A
F953 5A 125V
F954 5A 125V
C957 0.1
C958 0.1
EXCEPT US,CND MODEL
※NOT REPLACEABLE: BUIT IN TRANSFORMER
E,EA,TR MODEL
EXCEPT,E,EA,TR MODEL
US,C MOD


21
22
23
24
25
26
27
28
29
【HP BOARD】
US,CND MODEL
(See page 38.)
TO CONTROL BOARD CN506
④
CN052
J001
HEADPHONES
CN051
CN953
【POWER BOARD】
(See page 39.)
TO TA PANEL BOARD CN522
⑥
CN956
CN955
CN954
CN957
CN960
CN803
CN804
CN951
IC701
PROTECT
IC701 μPC1237HA
EXCEPT AEP,UK AUS MODEL
AEP,UK,AUS MODEL
R800 0.47
L801
L851
Q952
FAN SWITCH
IC910
FAN SWITCH
US,CND MODEL
FAN MOTOR
CN952
Q953
RELAY DRIVE
RY901
J952
SPEAKER
L
R
G,IT MODEL
UK MODEL
J953
SURROUND SPEAKER
D953 RBV-602
Q915,916
REG
EXCEPT CND MODEL
CND MODEL
VOLTAGE SELECTOR
240V ← 220V → 120V
F903 T2A
F902 T1A
S951
E,EA,TR MODEL
EXCEPT,E,EA,TR MODEL
F901 125V/2.5A T1A
US,CND MODEL
AEP,UK,G,IT,AUS MODEL
US,CND MODEL
R901 3.3M 1/2W
AEP,UK,AUS G,IT MODEL
L901
US,CND,E,EA,TR MODEL
J951
~AC IN

5-6. PRINTED WIRING BOARDS —MAIN SECTION— ● Refer to page 13 for Semiconductor Lead Layouts.


[POWER BOARD]
J951
~AC IN
AEP,UK,AUS,
G,IT MODEL
L901
US,CND,E,EA,
TR MODEL
E,EA,TR MODEL
S951
VOLTAGE SELECTOR
120V
220V
240V
F902
F903
EXCEPT E,
EA,TR MODEL
US,CND MODEL
R901
CN951
BRN
BLU
ORG
YEL
(CHASSIS)
UK MODEL
J953
SURROUND SPEAKER
J952
SPEAKER
G,IT MODEL
UK MODEL
D942
D941
D940
D943
R912
R991
US,CND MODEL
R953
CN952
CN955
CN956
GRY
WHT
1-645-179-
US,CND MODEL
RED
WHT
FAN MOTOR
(See page 36.)
TO CONTROL BOARD CN503
5
[POWER AMP BOARD]
CN803
CN804
CN801
CN802
IC701
IC801
EXCEPT AEP,UK,
AUS MODEL
AEP,UK,AUS MODEL
(CHASSIS)
1-645-178-
6
TO TA PANEL BOARD CN522 (See page 34.)
CN101
SYSTEM CONTROL I
CN105
CN107
US,CND,E,AUS,
EA,TR MODEL
VIDEO IN
PHONO IN
J101
DAT OUT
DAT IN
AEP,UK,G,
IT MODEL
AEP,UK,G,
IT MODEL
IC110
(See page 36.)
TO CONTROL BOARD CN502
3
(See page 36.)
TO CONTROL BOARD CN501
2
TO TC MAIN BOARD CN609
1
(See page 17.)
US,CND MODEL
EXCEPT US,
CND MODEL
[HP BOARD]
(See page 36.)
TO CONTROL BOARD CN506
4
US,CND MODEL
CN052
CN051
1-645-182-
J001
HEADPHONES
[TRANSFORMER BOARD]
EXCEPT E,EA,
TR MODEL
E,EA,TR MODEL
CN961
E,EA,TR MODEL
EXCEPT US,CND MODEL
F953
F954
C957
CN959
US,CND MODEL
CN970
1-645-181-


16
17
18
19
20
21
22
23
J101
VIDEO IN
PHONO IN
DAT OUT
DAT IN
L
R
[MAIN BOARD]
CN103
SYSTEM CONTROL 2
IC106
IC105
Q109
IC902
IC901
D901
D902
US CND MODEL
EXCEPT US

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D115	F-17	IC101	C-16
D116	E-15	IC104	C-17
D801	D-11	IC105	C-18
D802	C-12	IC106	B-20
D851	D-11	IC110	D-16
D901	E-18	IC701	C-11
D902	E-18	IC801	F-10
D903	F-21	IC901	F-19
D904	F-21	IC902	E-21
D905	F-21	IC910	D-7
D906	F-21		
D907	D-19	Q107	D-17
D908	D-21	Q108	C-17
D909	H-16	Q109	D-21
D910	H-15	Q701	C-11
D911	H-16	Q801	D-11
D912	H-16	Q851	D-11
D913	H-15	Q901	D-19
D914	D-18	Q902	D-19
D916	E-20	Q903	E-19
D918	E-4	Q904	E-20
D919	F-3	Q907	E-19
D920	G-18	Q908	G-19
D921	G-16	Q909	G-15
D931	C-7	Q910	E-19
D932	C-7	Q911	E-19
D940	C-5	Q912	G-18
D941	C-5	Q913	G-16
D942	C-5	Q915	E-4
D943	C-5	Q916	F-4
D944	F-4	Q929	F-16
D945	F-4	Q930	F-16
D951	C-7	Q952	D-7
D952	C-7	Q953	C-7
D953	F-6		
D954	D-6		

Note:

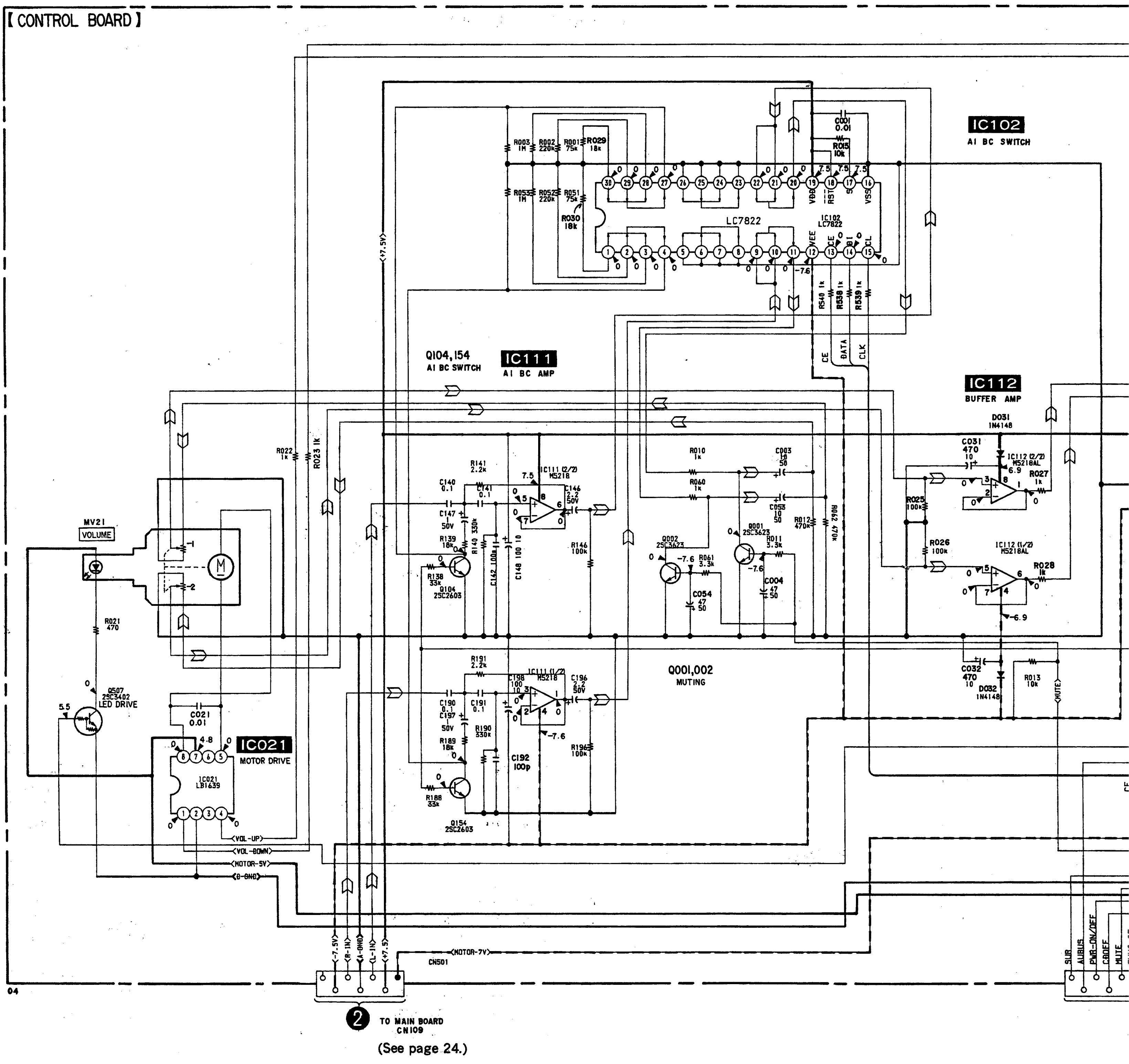
- o—— : parts extracted from the component side.
- CND: Canadian model
- G: Germany model
- IT: Italian model
- AUS: Australian model
- EA: Saudi Arabia model
- TR: Tourist model

5-8. SCHEMATIC DIAGRAM —PANEL SECTION— • Refer to page 40 for IC Block Diagrams.

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▬▬ : B+ Line
- ▬ ▬ ▬ : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
  ∗ : Impossible measurement point
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ▷ : PB (DECK A)

- CND: Canadian model
- G: Germany model
- IT: Italian model
- AUS: Australian model
- EA: Saudi Arabia model
- TR: Tourist model



1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
[CONTROL BOARD]
IC102
AI BC SWITCH
R003 1M
R002 220k
R001 75k
R029 18k
R053 1M
R052 220k
R051 75k
R030 18k
C001 0.01
R015 10k
LC7822
IC102 LC7822
VDD
RST
S
VSS
VEE
CE
DI
CL
7.5
-7.6
R540 1k
R538 1k
R539 1k
CE
DATA
CLK
<+7.5V>
Q104,154
AI BC SWITCH
IC111
AI BC AMP
IC112
BUFFER AMP
D031 1N4148
C031 470 10
IC112 (2/2) M5218AL
6.9
R027 1k
R025 100k
R026 100k
IC112 (1/2) M5218AL
R028 1k
-6.9
C032 470 10
D032 1N4148
R013 10k
<MUTE>
R010 1k
C003 10 50
R060 1k
C053 10 50
R012 470k
R062 470k
Q001 2SC3623
R011 3.3k
Q002 2SC3623
R061 3.3k
C054 47 50
C004 47 50
Q001,002
MUTING
R022 1k
R023 1k
R141 2.2k
C140 0.1
C141 0.1
IC111 (2/2) M5218
C146 2.2 50V
C147 1 50V
R139 18k
R140 330k
C142 100p
C148 100 10
R138 33k
Q104 2SC2603
R146 100k
R191 2.2k
C198 100 10
IC111 (1/2) M5218
C196 2.2 50V
C190 0.1
C191 0.1
C197 1 50V
R190 330k
R189 18k
C192 100p
R196 100k
R188 33k
Q154 2SC2603
MV21
VOLUME
M
R021 470
Q507 2SC3402 LED DRIVE
5.5
C021 0.01
4.8
IC021
MOTOR DRIVE
IC021 LB1639
<VOL-UP>
<VOL-DOWN>
<MOTOR-5V>
<D-GND>
<-7.5V>
<R-IN>
<A-GND>
<L-IN>
<+7.5V>
<MOTOR-7V>
CN501
04
②
TO MAIN BOARD CN109
(See page 24.)
SUR
AUBUS
PWR-ON/OFF
CBOFF
MUTE

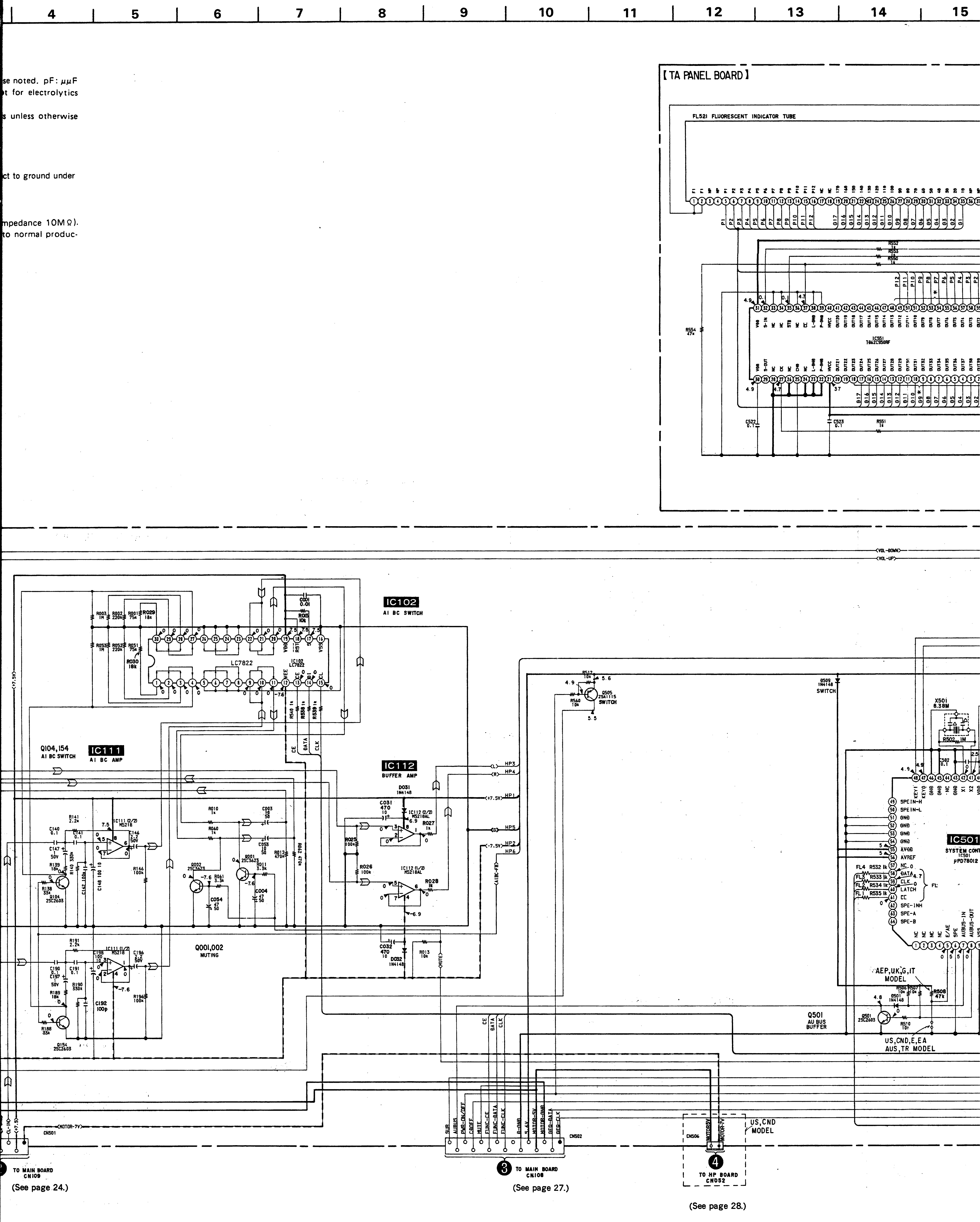
N— **• Refer to page 40 for IC Block Diagrams.**

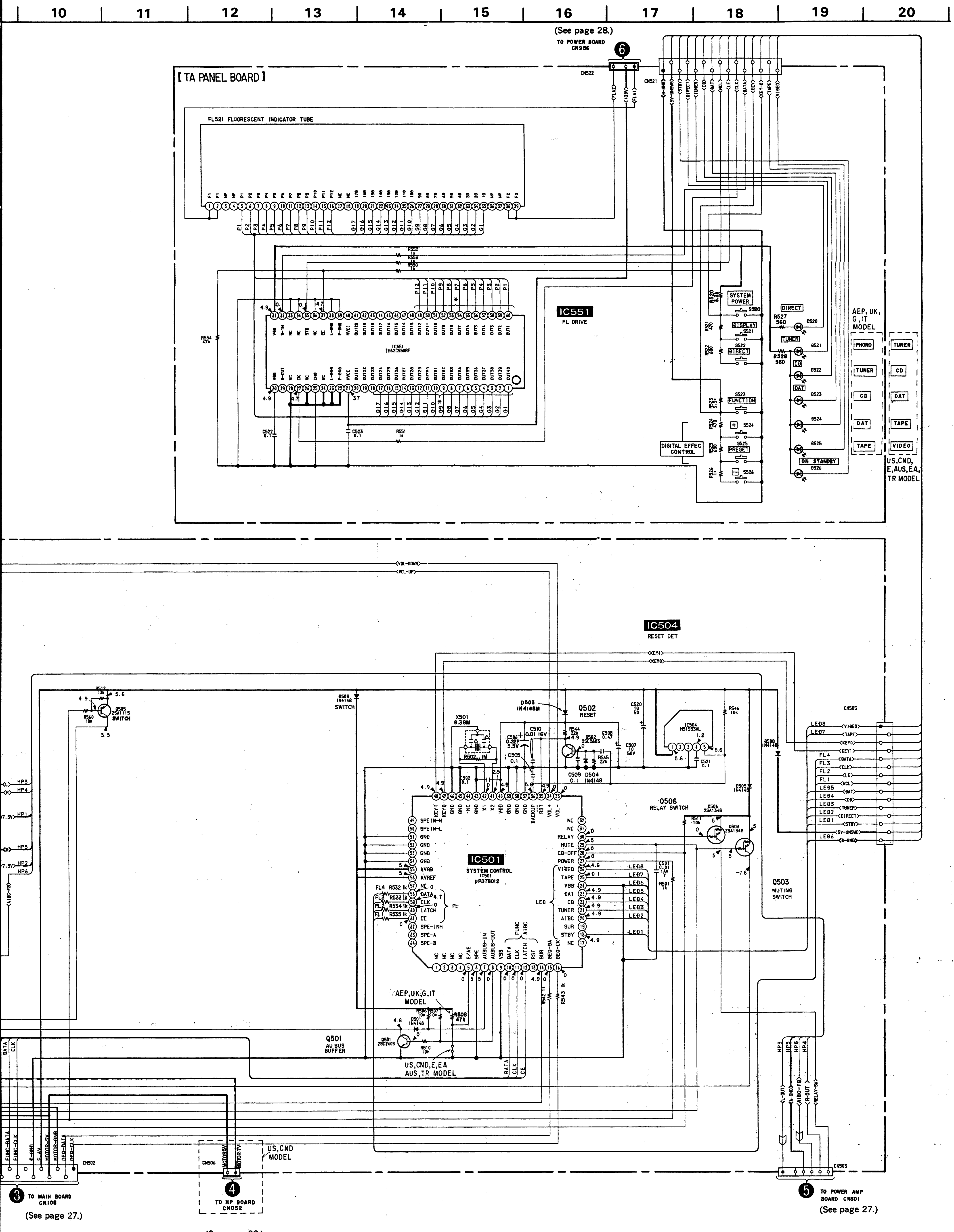
se noted. pF: μμF
t for electrolytics

s unless otherwise

ct to ground under

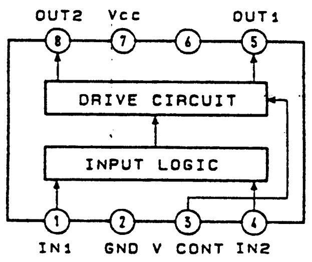
mpedance 10MΩ).
to normal produc-


4
5
6
7
8
9
10
11
12
13
14
15
[TA PANEL BOARD]
FL521 FLUORESCENT INDICATOR TUBE
IC551
R554 47k
C522 0.1
C523 0.1
R551 1k
R552 1k
R553 1k
R550 1k
IC102
AI BC SWITCH
LC7822
IC102 LC7822
C001 0.01
R015 10k
R003 1M
R002 220k
R001 75k
R029 18k
R053 1M
R052 220k
R051 75k
R030 18k
R540 1k
R538 1k
R539 1k
CE
DATA
CLK
Q104,154
AI BC SWITCH
IC111
AI BC AMP
IC112
BUFFER AMP
D031 1N4148
C031 470 10
R025 100k
R026 100k
R027 1k
R028 1k
C032 470 10
D032 1N4148
R013 10k
HP3
HP4
HP1
HP5
HP2
HP6
Q001,002
MUTING
Q002 2SC3623
Q001 2SC3623
R010 1k
R060 1k
R061 3.3k
R011 3.3k
C003
C053
C054 47 50
C004 47 50
R012 470k
R062 470k
R141 2.2k
C140 0.1
C141 0.1
C146 2.2 50V
C147 50V
R139 18k
R140 330k
C142 100 10
C148 100 10
R138 33k
Q104 2SC2603
R146 100k
R191 2.2k
C198 100 10
C196 2.2 50V
C190 0.1
C191 0.1
C197 50V
R189 18k
R190 330k
C192 100p
R188 33k
Q154 2SC2603
R194 100k
R512 10k
Q505 2SA1115
SWITCH
R560 10k
D509 1N4148
SWITCH
X501 8.38M
R502 1M
IC501
SYSTEM CONT
IC501 μPD78012
SPEIN-H
SPEIN-L
GND
AVDD
AVREF
NC
DATA
CLK
LATCH
CE
SPE-INH
SPE-A
SPE-B
FL4 R532 1k
FL3 R533 1k
FL2 R534 1k
FL1 R535 1k
FL
AEP,UK,G,IT MODEL
R506 10k
R507 10k
R508 47k
D501 1N4148
Q501 2SC2603
R510 10k
Q501
AU BUS BUFFER
US,CND,E,EA
AUS,TR MODEL
CN501
CN502
CN506
MOTOR-7V
SUB
AUBUS
PWR-ON/OFF
CDOFF
MUTE
FUNC-CE
FUNC-DATA
FUNC-CLK
D-GND
5.6V
MOTOR-5V
MOTOR-GND
RED-DATA
RED-CLK
US,CND MODEL
TO MAIN BOARD CN109
(See page 24.)
3 TO MAIN BOARD CN108
(See page 27.)
4 TO HP BOARD CN052
(See page 28.)

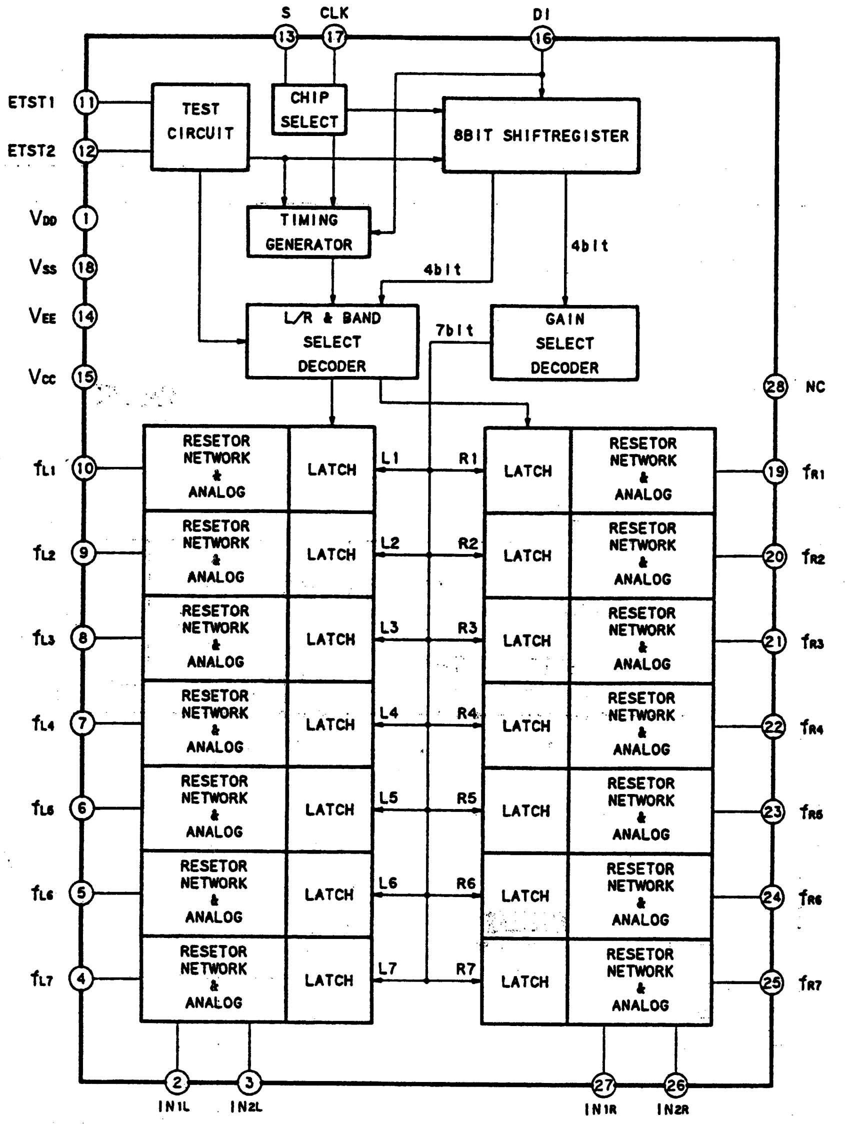

10
11
12
13
14
15
16
17
18
19
20
(See page 28.)
TO POWER BOARD CN956
6
CN522
CN521
【TA PANEL BOARD】
FL521 FLUORESCENT INDICATOR TUBE
IC551
FL DRIVE
IC551 T062C950RF
SYSTEM POWER
S520
DISPLAY
S521
DIRECT
S522
FUNCTION
S523
S524
PRESET
S525
S526
DIGITAL EFFEC CONTROL
DIRECT
TUNER
CD
DAT
ON STANDBY
AEP, UK, G, IT MODEL
PHONO
TUNER
CD
DAT
TAPE
VIDEO
US,CND, E,AUS,EA, TR MODEL
IC504
RESET DET
IC504 NS1953AL
X501 6.38M
D503 1N4148M
Q502
RESET
Q502 2SC2603
D509 1N4148
SWITCH
Q505 2SA1115
SWITCH
IC501
SYSTEM CONTROL
IC501 µPD78012
Q506
RELAY SWITCH
Q504 2SA1348
Q503 2SA1348
Q503
MUTING SWITCH
CN505
AEP,UK,G,IT MODEL
Q501
AU BUS BUFFER
Q501 2SC2603
US,CND,E,EA AUS,TR MODEL
CN502
3
TO MAIN BOARD CN108
(See page 27.)
CN506
US,CND MODEL
4
TO HP BOARD CN052
(See page 28.)
CN503
5
TO POWER AMP BOARD CN801
(See page 27.)

• IC Block Diagrams

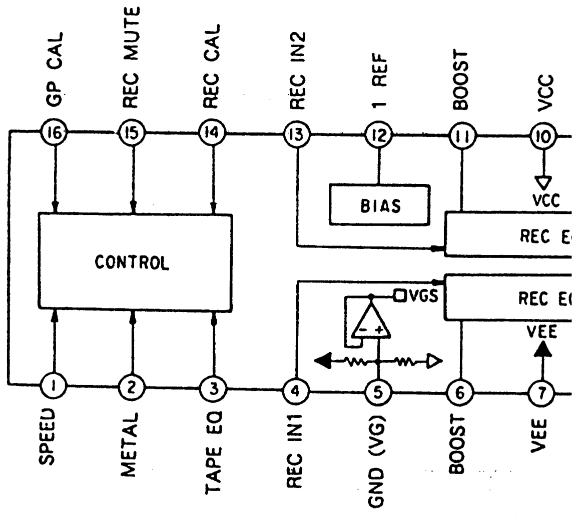
IC021 LB1639


OUT2
Vcc
OUT1
DRIVE CIRCUIT
INPUT LOGIC
IN1
GND
V CONT
IN2

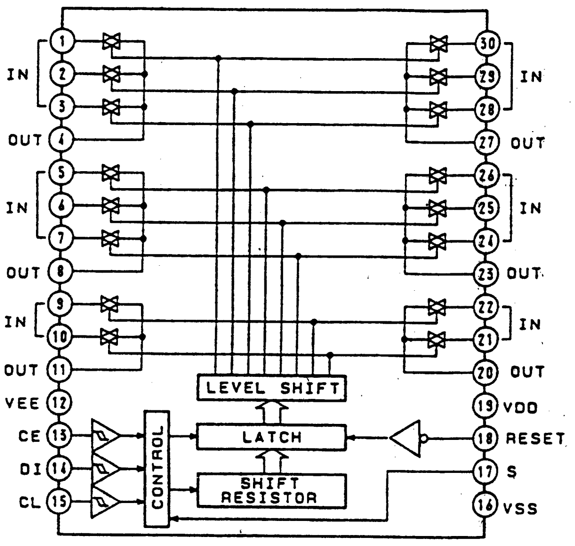
IC105 NJU7305L


S
CLK
DI
ETST1
ETST2
TEST CIRCUIT
CHIP SELECT
8BIT SHIFTREGISTER
VDD
VSS
VEE
VCC
TIMING GENERATOR
4bit
4bit
7bit
L/R & BAND SELECT DECODER
GAIN SELECT DECODER
NC
RESETOR NETWORK & ANALOG
LATCH
L1
L2
L3
L4
L5
L6
L7
R1
R2
R3
R4
R5
R6
R7
fL1
fL2
fL3
fL4
fL5
fL6
fL7
fR1
fR2
fR3
fR4
fR5
fR6
fR7
IN1L
IN2L
IN1R
IN2R

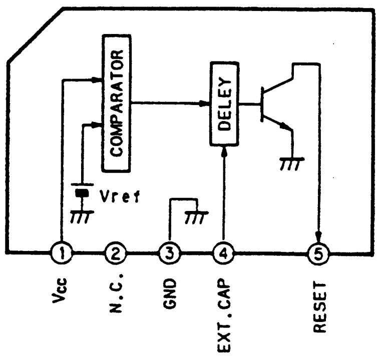
IC205 CXA1578M


GP CAL
REC MUTE
REC CAL
REC IN2
1 REF
BOOST
VCC
CONTROL
BIAS
REC E
REC E
VGS
VCC
VEE
SPEED
METAL
TAPE EQ
REC IN1
GND (VG)
BOOST
VEE

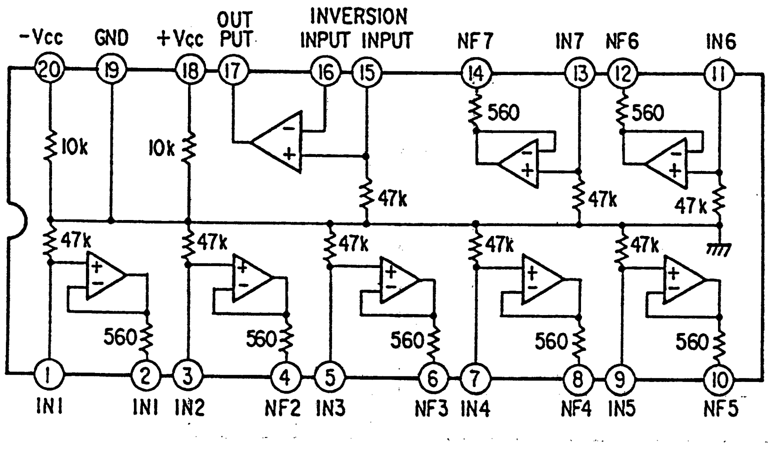
IC101, 102 LC7822


IN
OUT
IN
OUT
IN
OUT
VEE
CE
DI
CL
IN
OUT
IN
OUT
IN
OUT
VDD
RESET
S
VSS
LEVEL SHIFT
LATCH
SHIFT RESISTOR
CONTROL

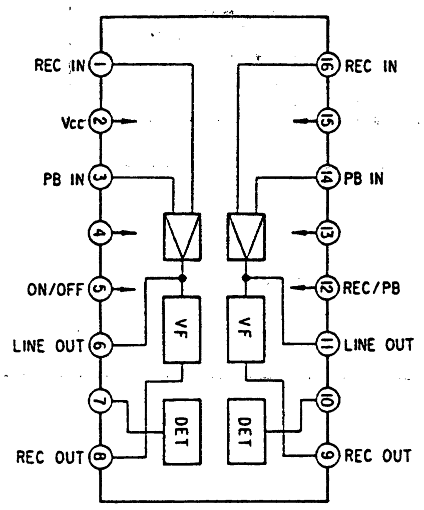
IC504 M51953AL


COMPARATOR
DELEY
Vref
Vcc
N.C.
GND
EXT.CAP
RESET

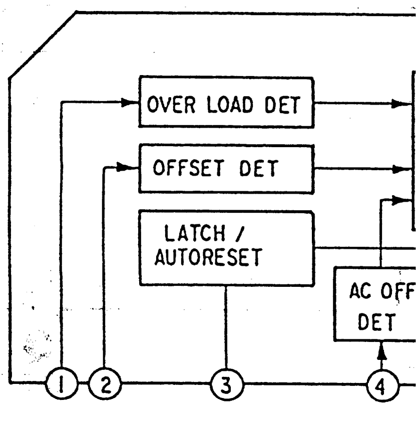
IC104, 106 M5229P

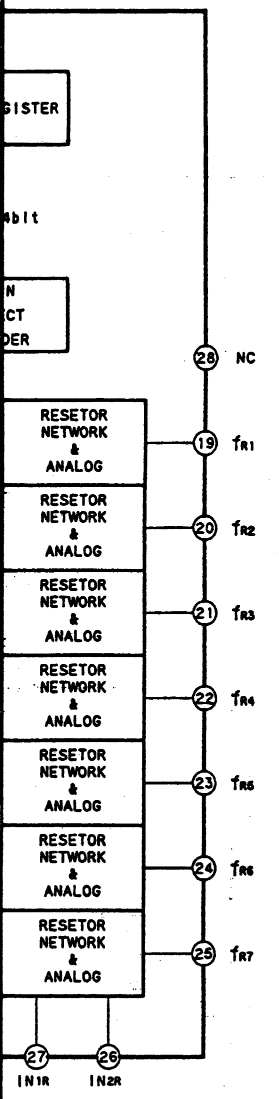

-Vcc
GND
+Vcc
OUT PUT
INVERSION INPUT
INPUT
NF7
IN7
NF6
IN6
10k
10k
560
560
47k
47k
47k
47k
47k
47k
47k
47k
560
560
560
560
560
IN1
IN1
IN2
NF2
IN3
NF3
IN4
NF4
IN5
NF5

IC202 CXA1101M

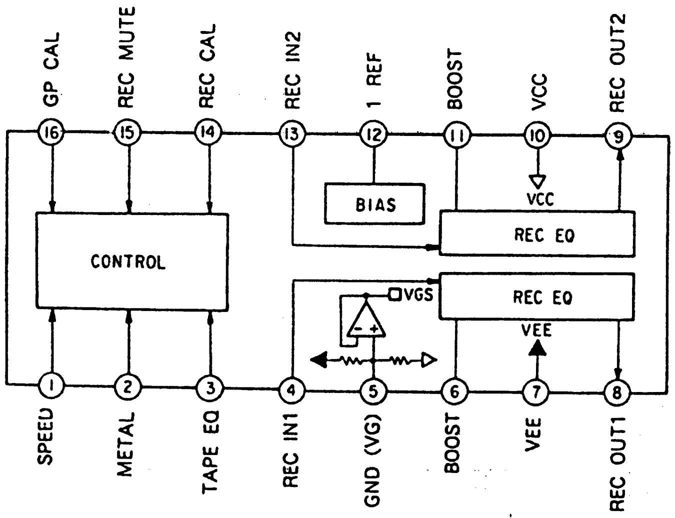

REC IN
Vcc
PB IN
ON/OFF
LINE OUT
REC OUT
REC IN
PB IN
REC/PB
LINE OUT
REC OUT
VF
VF
DET
DET

IC701 μPD1237HA

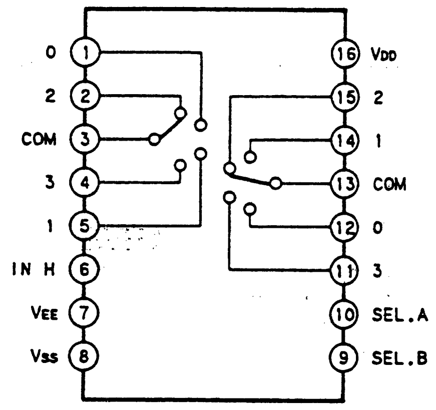

OVER LOAD DET
OFFSET DET
LATCH / AUTORESET
AC OFF DET


ISTER
bit
N
CT
ER
RESETOR NETWORK & ANALOG
NC
fR1
fR2
fR3
fR4
fR5
fR6
fR7
IN1R
IN2R

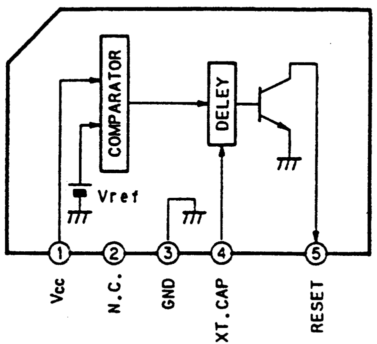
IC205 CXA1578M


GP CAL
REC MUTE
REC CAL
REC IN2
1 REF
BOOST
VCC
REC OUT2
BIAS
VCC
REC EQ
CONTROL
VGS
REC EQ
VEE
SPEED
METAL
TAPE EQ
REC IN1
GND (VG)
BOOST
VEE
REC OUT1

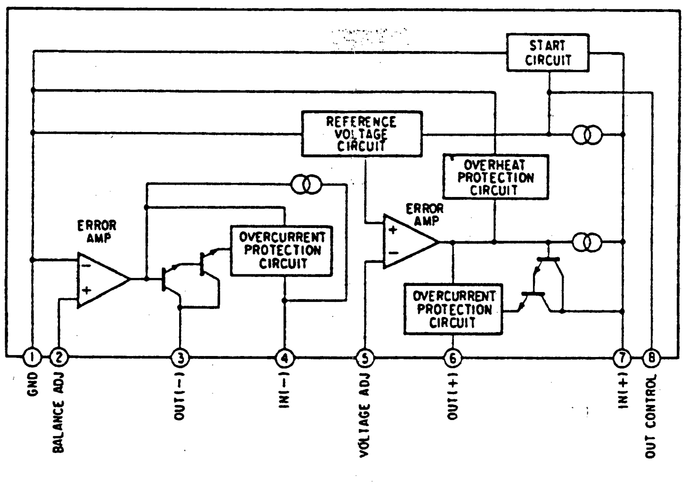
IC406 CD4052BCM


0
2
COM
3
1
IN H
VEE
Vss
VDD
2
1
COM
0
3
SEL.A
SEL.B

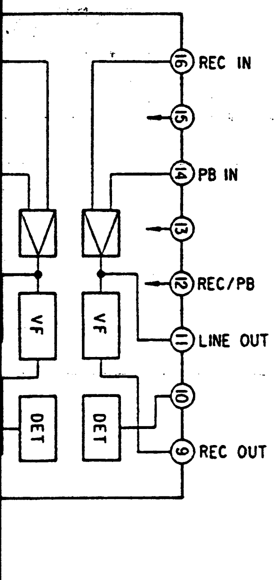
IC504 M51953AL


COMPARATOR
DELEY
Vref
Vcc
N.C.
GND
EXT.CAP
RESET

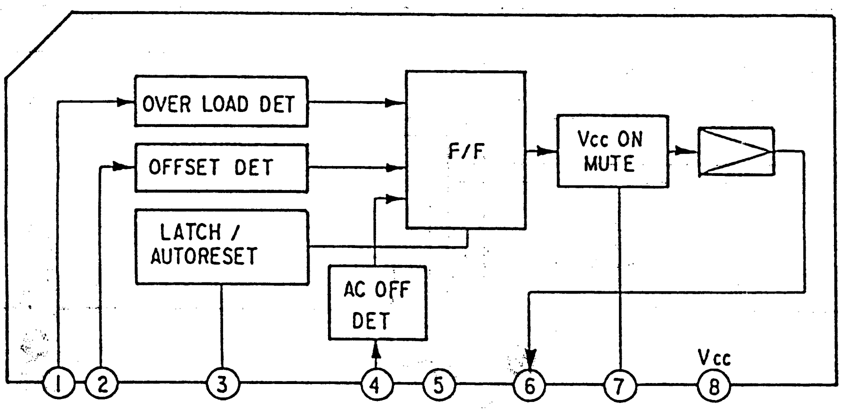
IC901 M5230L-A


START CIRCUIT
REFERENCE VOLTAGE CIRCUIT
OVERHEAT PROTECTION CIRCUIT
ERROR AMP
ERROR AMP
OVERCURRENT PROTECTION CIRCUIT
OVERCURRENT PROTECTION CIRCUIT
GND
BALANCE ADJ
OUT(-)
IN(-)
VOLTAGE ADJ
OUT(+)
IN(+)
OUT CONTROL

2 CXA1101M


REC IN
PB IN
REC/PB
LINE OUT
REC OUT
VF
VF
DET
DET

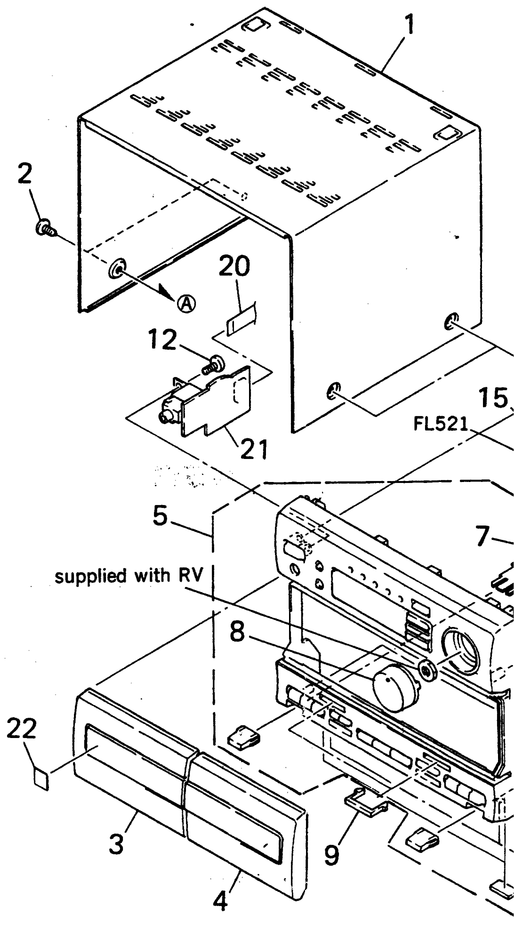
IC701 μPD1237HA


OVER LOAD DET
OFFSET DET
LATCH / AUTORESET
F/F
Vcc ON MUTE
AC OFF DET
Vcc

NOTE:

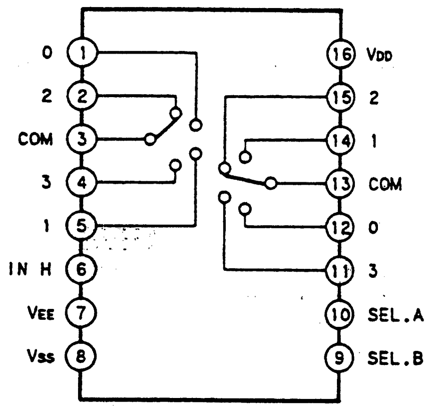
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.

6-1. CABINET SECTION

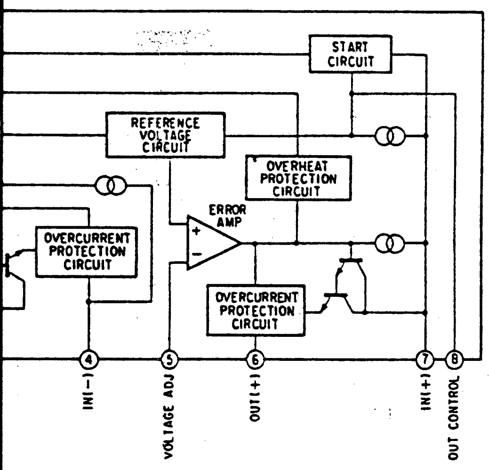

1
2
20
12
21
15
FL521
5
7
supplied with RV
8
22
3
9
4

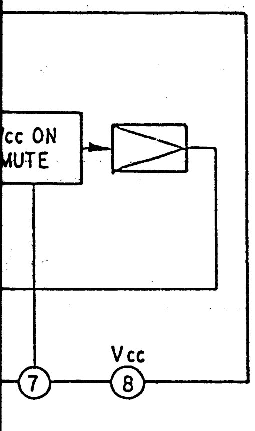
Ref. No.	Part No.	Description
* 1	4-953-614-11	CASE
2	3-363-099-01	SCREW (CASE 3 TP2)
3	X-4942-819-1	LID (A) ASSY, CASSETTE
4	X-4942-820-1	LID (B) ASSY, CASSETTE
5	X-4942-816-1	PANEL ASSY, FRONT (US, Canadian, E, AUS, EA, T
5	X-4942-821-1	PANEL ASSY, FRONT (AEP,
6	4-930-336-21	FOOT (FELT)
7	3-489-099-11	SPRING, TENSION
8	X-4942-539-1	KNOB (VOL) ASSY
9	4-953-606-01	COVER, AZIMUTH
10	4-953-601-01	KNOB, SLIDE
* 11	A-4356-163-A	TC SW BOARD, COMPLETE (
* 11	A-4356-209-A	TC SW BOARD, COMPLETE (
12	4-951-620-01	SCREW (2.6X8), +BVTP
* 13	A-4356-160-A	TA PANEL BOARD, COMPLET

IC406 CD4052BCM


0
2
COM
3
1
IN H
VEE
VSS
1
2
3
4
5
6
7
8
16
15
14
13
12
11
10
9
VDD
2
1
COM
0
3
SEL.A
SEL.B

-A


START CIRCUIT
REFERENCE VOLTAGE CIRCUIT
OVERHEAT PROTECTION CIRCUIT
ERROR AMP
OVERCURRENT PROTECTION CIRCUIT
OVERCURRENT PROTECTION CIRCUIT
4
5
6
7
8
IN(-)
VOLTAGE ADJ
OUT(+)
IN(+)
OUT CONTROL


Vcc ON
MUTE
Vcc
7
8

SECTION 6
EXPLEDED VIEWS

NOTE:

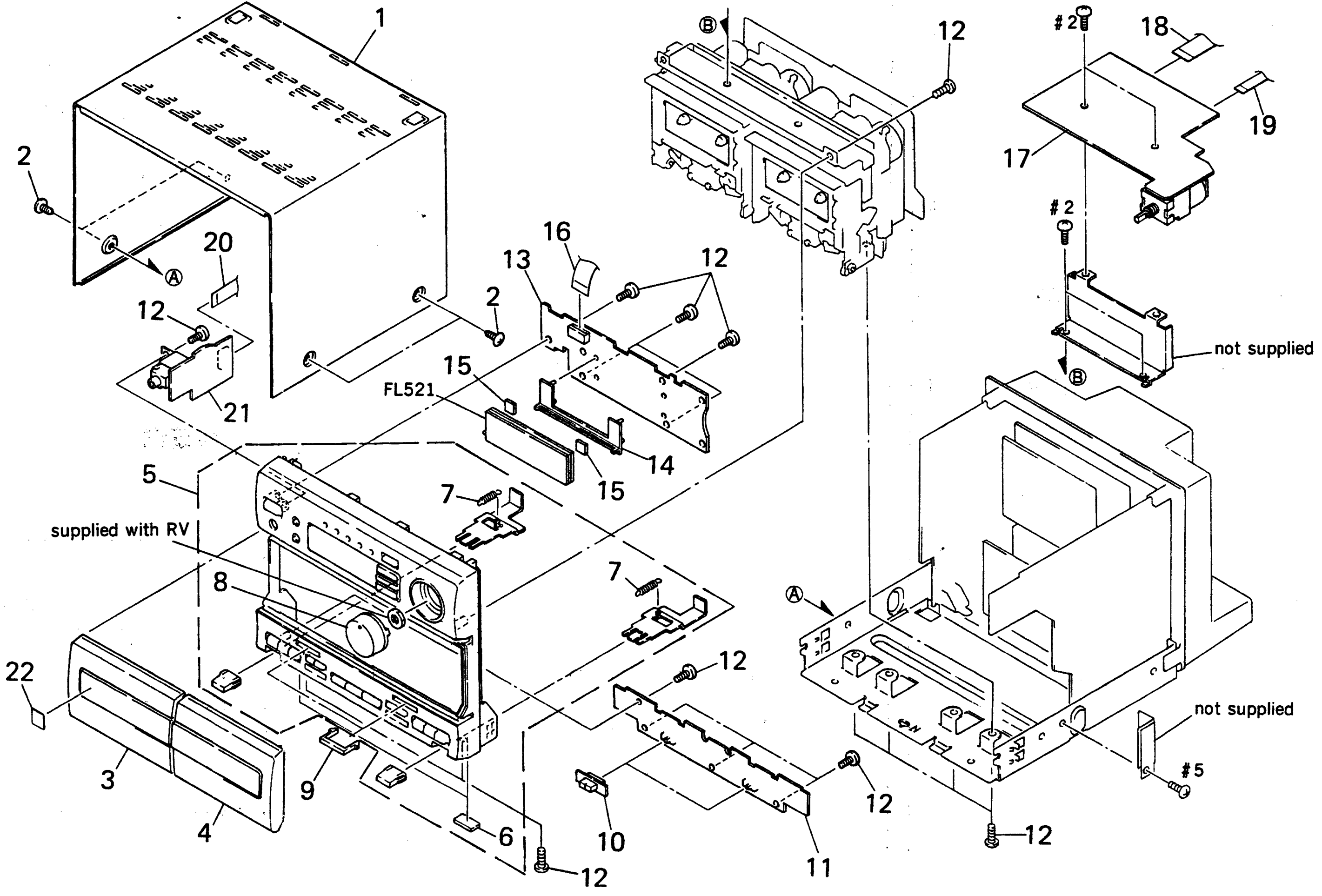
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.
- G : Germany model
- IT : Italian model
- AUS : Australian model
- EA : Saudi Arabia model
- TR : Tourist model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CABINET SECTION


1
2
Ⓐ
20
12
21
2
16
13
12
15
FL521
14
15
5
supplied with RV
7
8
7
22
3
4
9
6
12
10
12
11
Ⓑ
12
#2
18
19
17
#2
not supplied
Ⓑ
Ⓐ
not supplied
#5
12
12

Ref. No.	Part No.	Description	Remark
* 1	4-953-614-11	CASE	
2	3-363-099-01	SCREW (CASE 3 TP2)	
3	X-4942-819-1	LID (A) ASSY, CASSETTE	
4	X-4942-820-1	LID (B) ASSY, CASSETTE	
5	X-4942-816-1	PANEL ASSY, FRONT (US, Canadian, E, AUS, EA, TR)	
5	X-4942-821-1	PANEL ASSY, FRONT (AEP, UK, G, IT)	
6	4-930-336-21	FOOT (FELT)	
7	3-489-099-11	SPRING, TENSION	
8	X-4942-539-1	KNOB (VOL) ASSY	
9	4-953-606-01	COVER, AZIMUTH	
10	4-953-601-01	KNOB, SLIDE	
* 11	A-4356-163-A	TC SW BOARD, COMPLETE (G, IT)	
* 11	A-4356-209-A	TC SW BOARD, COMPLETE (EXCEPT G, IT)	
12	4-951-620-01	SCREW (2.6X8), +BVTP	
* 13	A-4356-160-A	TA PANEL BOARD, COMPLETE (G, IT)	
* 13	A-4356-191-A	TA PANEL BOARD, COMPLETE (E, EA, TR)	
* 13	A-4356-202-A	TA PANEL BOARD, COMPLETE (US, Canadian)	
* 13	A-4356-206-A	TA PANEL BOARD, COMPLETE (AEP, UK, AUS)	
* 14	4-953-602-01	HOLDER (FL TUBE)	
* 15	4-921-941-01	CUSHION (FL)	
16	1-575-903-11	WIRE, FLAT TYPE (15 CORE)	
* 17	A-4356-161-A	CONTROL BOARD, COMPLETE (G, IT)	
* 17	A-4356-192-A	CONTROL BOARD, COMPLETE (E, AUS, EA, TR)	
* 17	A-4356-203-A	CONTROL BOARD, COMPLETE (US, Canadian)	
* 17	A-4356-207-A	CONTROL BOARD, COMPLETE (AEP, UK)	
18	1-696-727-11	WIRE (FLAT TYPE) (15 CORE)	
19	1-575-731-11	WIRE, FLAT TYPE (7 CORE)	
20	1-690-588-31	WIRE, FLAT TYPE (9 CORE)	
* 21	1-645-182-11	HP BOARD	
22	3-703-710-41	STICKER, SONY SYMBOL (12)	
FL521	1-519-735-11	INDICATOR TUBE, FLUORESCENT	

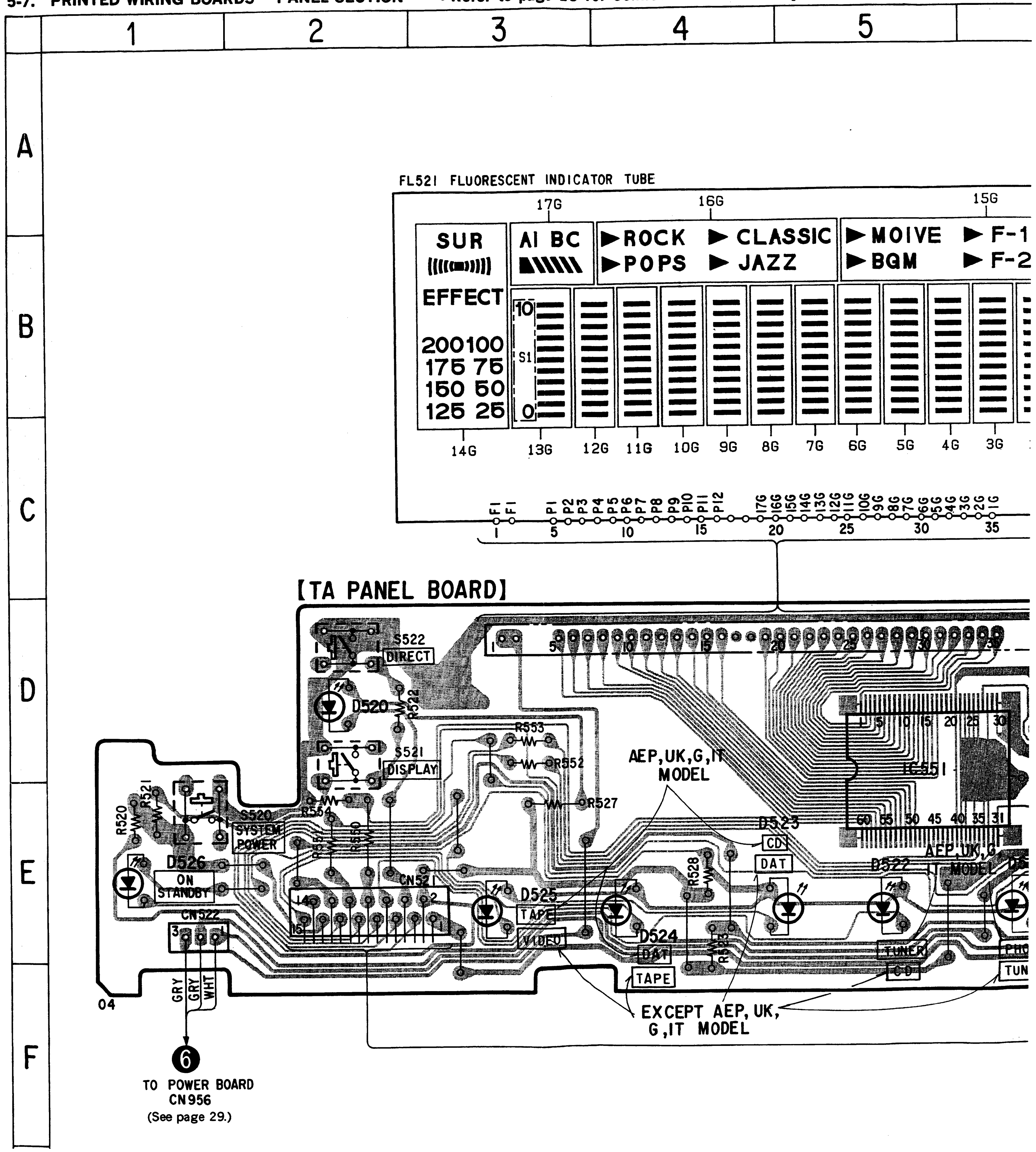
• Semiconductor Location

Ref. No.	Location
D031	C-12
D032	B-13
D501	E-11
D503	D-9
D504	D-9
D505	B-10
D508	B-10
D509	E-11
D520	D-2
D521	E-6
D522	E-5
D523	E-4
D524	E-4
D525	E-3
D526	E-1
IC021	E-14
IC102	D-12
IC111	D-13
IC112	B-12
IC501	D-10
IC504	D-9
IC551	D-5
Q001	D-14
Q002	E-14
Q104	D-13
Q154	C-12
Q501	E-11
Q502	D-9
Q503	C-10
Q505	E-9
Q506	C-10
Q507	E-14

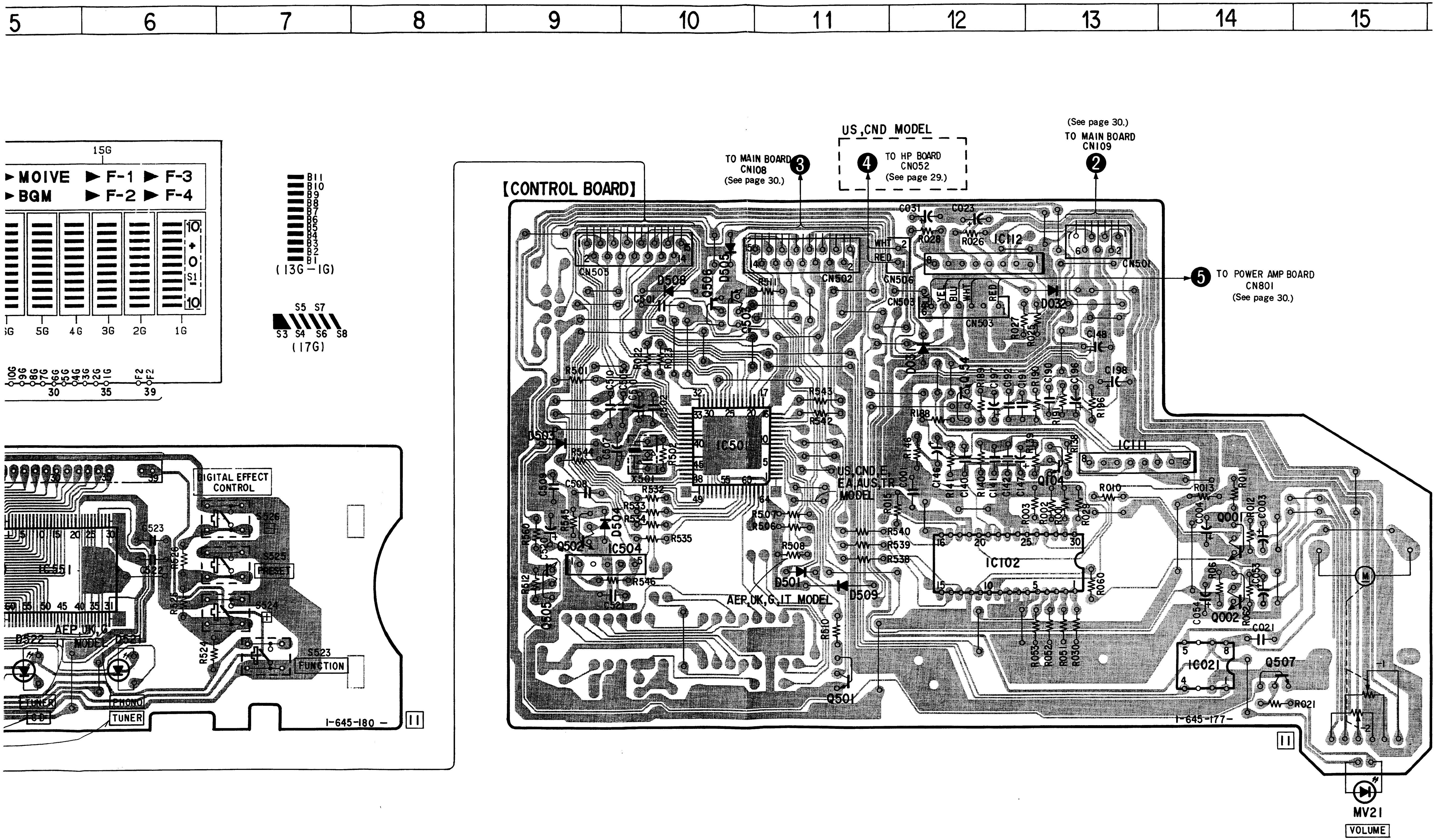
Note:

- o—— : parts extracted from the component side.
- CND: Canadian model
- G: Germany model
- IT: Italian model
- AUS: Australian model
- EA: Saudi Arabia model
- TR: Tourist model

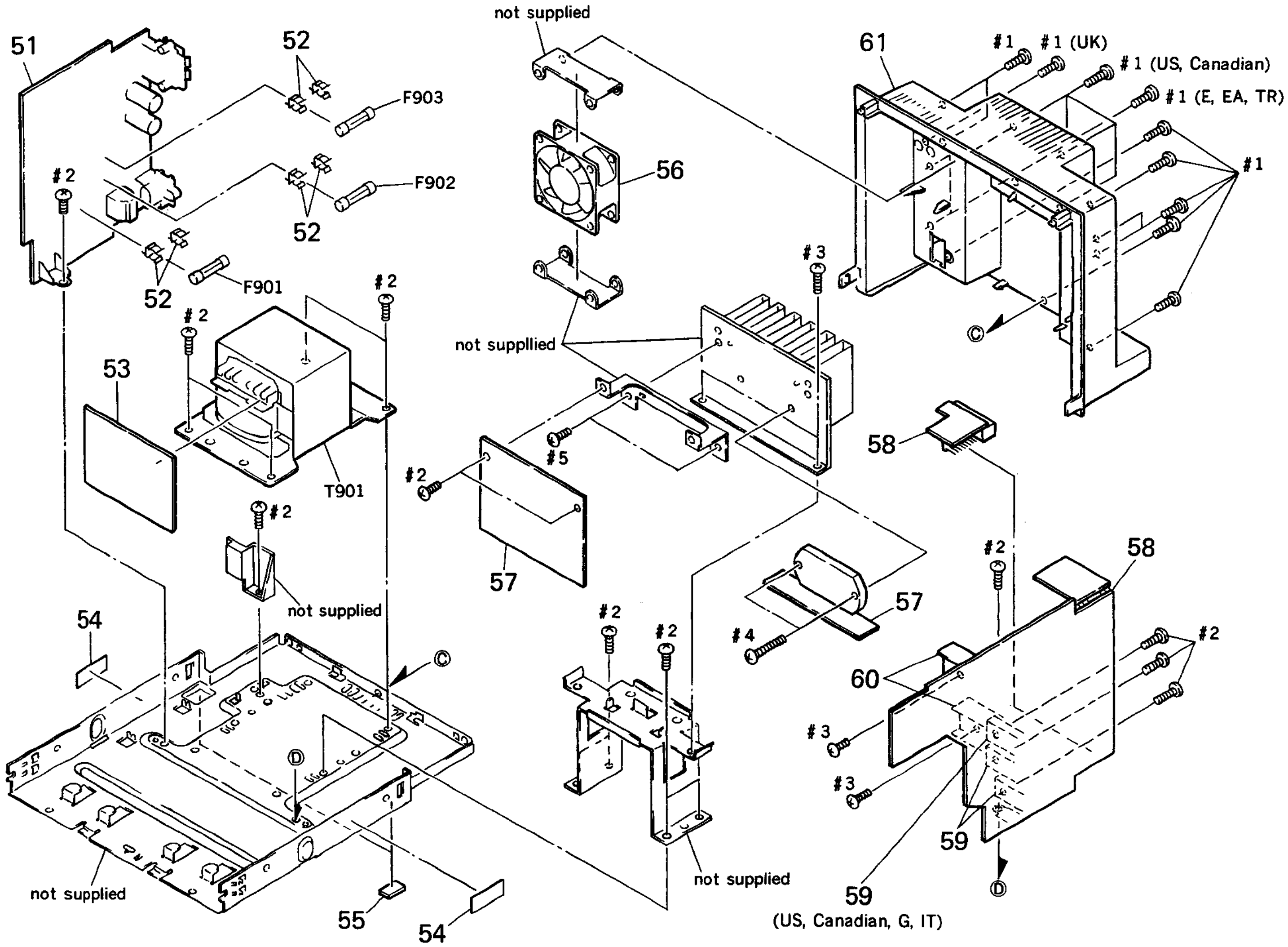
5-7. PRINTED WIRING BOARDS —PANEL SECTION— • Refer to page 13 for Semiconductor Lead Layouts.


1
2
3
4
5
A
B
C
D
E
F
FL521 FLUORESCENT INDICATOR TUBE
17G
16G
15G
SUR
AI BC
▶ROCK ▶CLASSIC
▶POPS ▶JAZZ
▶MOIVE ▶F-1
▶BGM ▶F-2
EFFECT
10
S1
0
200 100
175 75
150 50
125 25
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
1
5
10
15
20
25
30
35
【TA PANEL BOARD】
S522
DIRECT
D520
R522
R553
R552
S521
DISPLAY
R527
AEP,UK,G,IT MODEL
IC551
R520
R521
S520
SYSTEM POWER
R554
R550
R551
D526
ON STANDBY
CN521
CN522
D525
TAPE
VIDEO
D524
DAT
TAPE
R528
D523
CD
DAT
D522
AEP,UK,G IT MODEL
TUNER
CD
TUN
EXCEPT AEP, UK, G, IT MODEL
04
GRY
GRY
WHT

❻ TO POWER BOARD CN956 (See page 29.)


5
6
7
8
9
10
11
12
13
14
15
15G
▶MOIVE ▶F-1 ▶F-3
▶BGM ▶F-2 ▶F-4
B11 B10 B9 B8 B7 B6 B5 B4 B3 B2 B1
(13G−1G)
S5 S7
S3 S4 S6 S8
(17G)
5G 4G 3G 2G 1G
30 35 39
DIGITAL EFFECT CONTROL
IC551
S526
S525
PRESET
S524
S523
FUNCTION
D522
D521
AEP,UK,G MODEL
TUNER
PHONO
TUNER
R526
R525
R524
C522
523
1-645-180 −
11
【CONTROL BOARD】
TO MAIN BOARD CN108 (See page 30.)
❸
US,CND MODEL
❹
TO HP BOARD CN052 (See page 29.)
(See page 30.)
TO MAIN BOARD CN109
❷
❺ TO POWER AMP BOARD CN801 (See page 30.)
CN505
CN502
CN506
CN503
CN501
D508
D505
D506
C501
R511
WHT RED
YEL BLU WHT RED
IC112
C031 C023 R028 R026
D032
C148
C198
R501
C510
R502
X501
D503
R544
C508
C509
R545
D504
Q502
IC504
R546
R532 R533 R534 R535
IC501
R543 R542
R507 R506
R540 R539 R538
R508
D501
D509
AEP,UK,G,IT MODEL
US,CND,E, EA,AUS,TR MODEL
R510
Q501
R512
Q505
IC111
IC102
Q104
R010 R013 R011
Q001
C004 C003
R06
C053
C054
Q002
R062
C021
IC021
Q507
R021
R053 R052 R051 R030
R060
R188
R146
1-645-177−
11
MV21
VOLUME

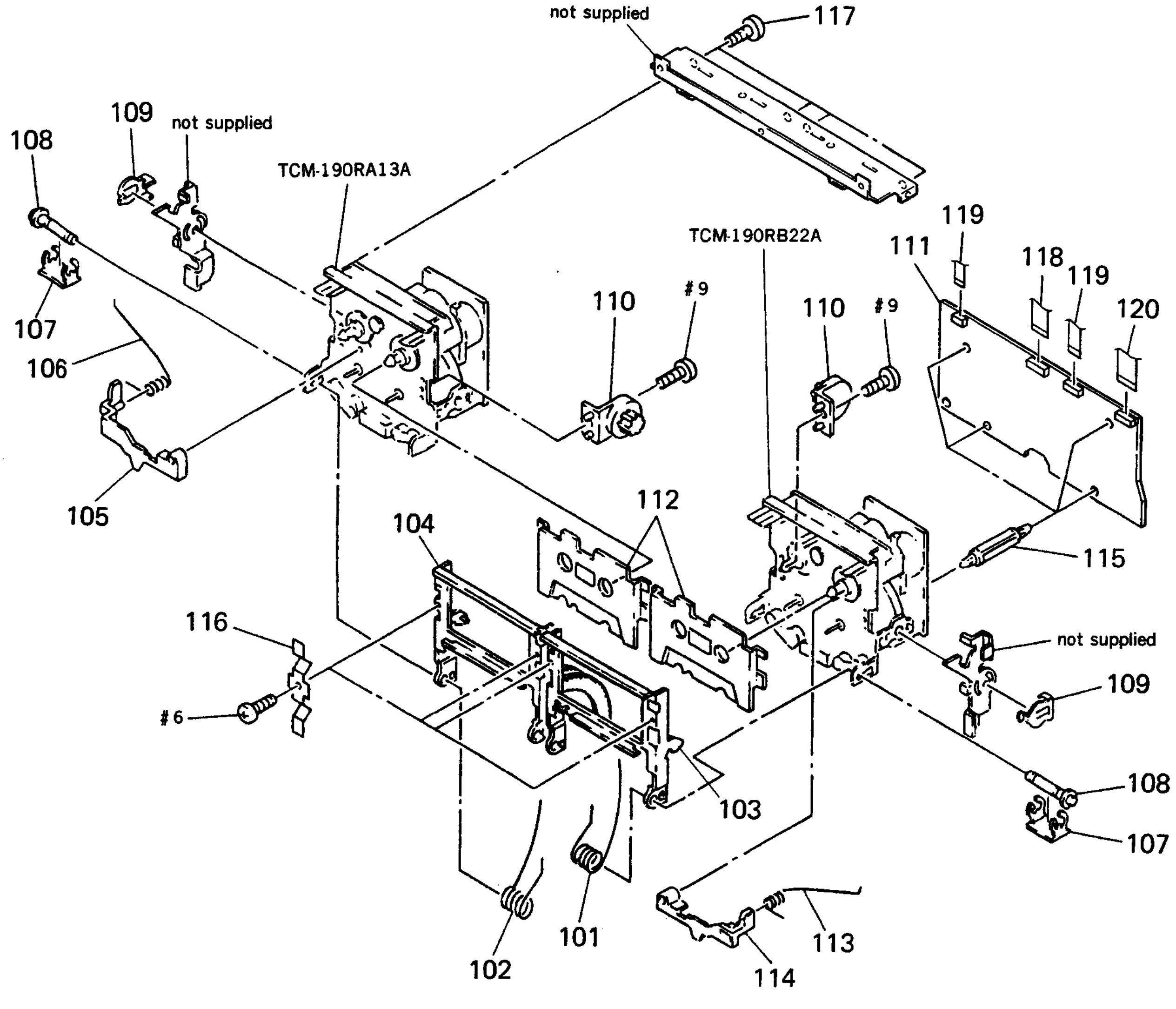
6-2. CHASSIS SECTION


not supplied
51
52
F903
F902
52
#2
52
F901
#2
#2
53
T901
#2
not supplied
54
not supplied
55
54
©
Ⓓ
56
not suppllied
#3
#5
#2
57
#2
#2
57
#4
not supplied
61
#1
#1 (UK)
#1 (US, Canadian)
#1 (E, EA, TR)
#1
©
58
#2
58
#2
60
#3
#3
59
59
(US, Canadian, G, IT)
Ⓓ

Ref. No.	Part No.	Description	Remark
* 51	A-4356-156-A	POWER BOARD, COMPLETE (G, IT)	
* 51	A-4356-186-A	POWER BOARD, COMPLETE (E, TR)	
* 51	A-4356-187-A	POWER BOARD, COMPLETE (EA)	
* 51	A-4356-194-A	POWER BOARD, COMPLETE (US, Canadian)	
* 51	A-4356-197-A	POWER BOARD, COMPLETE (AEP, AUS)	
* 51	A-4356-198-A	POWER BOARD, COMPLETE (UK)	
* 52	1-533-213-31	HOLDER, FUSE	
* 53	1-645-181-11	TRANSFORMER BOARD	
* 54	3-703-044-26	LABEL, CAUTION (US, Canadian)	
55	4-930-336-21	FOOT (FELT)	
56	1-541-860-41	MOTOR, DC FAN (US, Canadian)	
* 57	A-4356-158-A	POWER AMP BOARD, COMPLETE (G, IT)	
* 57	A-4356-189-A	POWER AMP BOARD, COMPLETE (E, EA, TR)	
* 57	A-4356-196-A	POWER AMP BOARD, COMPLETE (US, Canadian)	
* 57	A-4356-200-A	POWER AMP BOARD, COMPLETE (AEP, UK, AUS)	
* 58	A-4356-159-A	MAIN BOARD, COMPLETE (G, IT)	
* 58	A-4356-190-A	MAIN BOARD, COMPLETE (E, AUS, EA, TR)	
* 58	A-4356-201-A	MAIN BOARD, COMPLETE (US, Canadian)	
* 58	A-4356-205-A	MAIN BOARD, COMPLETE (AEP, UK)	
* 59	3-309-144-21	HEAT SINK	
* 60	4-363-146-71	HEAT SINK, V. OUT (EXCEPT US, Canadian, G, IT)	
* 61	4-953-613-01	PANEL, BACK (US, Canadian, AUS)	
* 61	4-953-613-11	PANEL, BACK (AEP, G, IT)	
* 61	4-953-613-21	PANEL, BACK (UK)	
* 61	4-953-613-31	PANEL, BACK (E, EA, TR)	
⚠F901	1-532-078-00	FUSE T1A (AEP, UK, G, IT, AUS)	
⚠F901	1-532-744-11	FUSE, GLASS TUBE 125V/2.5A (US, Canadian)	
⚠F902	1-532-203-00	FUSE T2A (E, EA, TR)	
⚠F903	1-532-078-00	FUSE T1A (E, EA, TR)	
⚠T901	1-697-002-11	TRANSFORMER, POWER (E, EA, TR)	
⚠T901	1-697-003-11	TRANSFORMER, POWER (UK, AUS)	
⚠T901	1-697-004-11	TRANSFORMER, POWER (AEP, G, IT)	
⚠T901	1-697-005-11	TRANSFORMER, POWER (US, Canadian)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-3. CASSETTE HOLDER SECTION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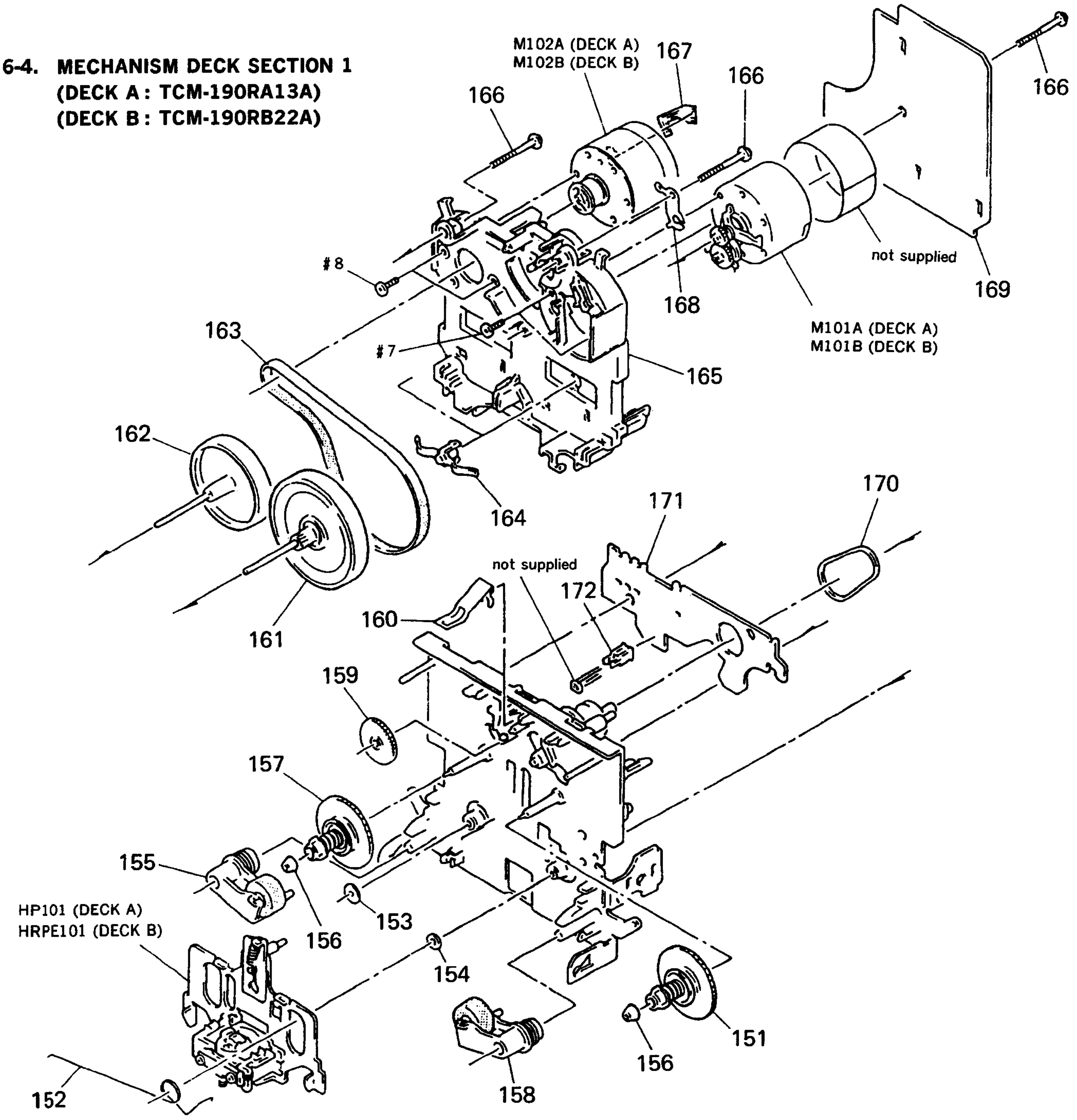
117
109
not supplied
108
TCM-190RA13A
TCM-190RB22A
119
111
118
119
120
110
#9
110
#9
107
106
105
104
112
115
116
#6
not supplied
109
108
103
107
101
113
102
114

Ref. No.	Part No.	Description	Remark
101	3-354-960-01	SPRING (LOADING R), TORSION	
102	3-354-959-01	SPRING (LOADING L), TORSION	
103	X-3362-856-1	HOLDER (R) ASSY, CASSETTE	
104	X-3362-857-1	HOLDER (L) ASSY, CASSETTE	
105	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
106	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
107	3-367-720-01	RING (W), RETAINING	
108	3-367-721-01	SHAFT (FULCRUM SHAFT)	
109	3-354-957-01	JOINT (LOCK LEVER)	
110	3-354-963-01	DAMPER	
* 111	A-4356-164-A	TC MAIN BOARD, COMPLETE (G, IT)	
* 111	A-4356-210-A	TC MAIN BOARD, COMPLETE (EXCEPT G, IT)	
112	3-367-711-01	RETAINER, CASSETTE	
113	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
114	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
* 115	3-682-419-21	HOLDER, P.C.B	
116	3-340-137-01	SPRING, CASSETTE RETAINER	
117	4-951-620-01	SCREW (2.6X8), +BVTP	
118	1-696-731-11	WIRE (FLAT TYPE) (15 CORE)	
119	1-696-725-11	WIRE (FLAT TYPE) (9 CORE)	
120	1-696-726-11	WIRE (FLAT TYPE) (13 CORE)	

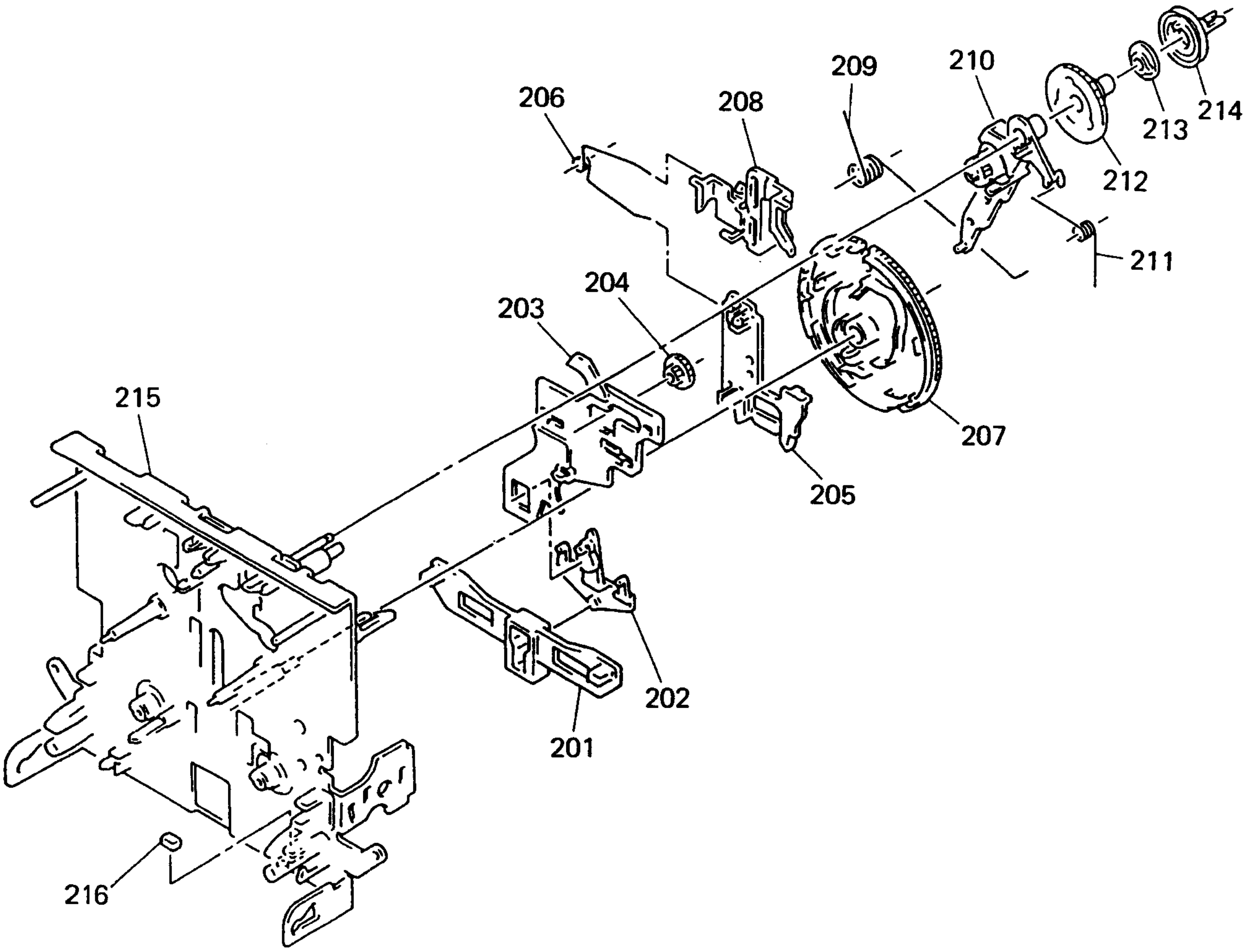
6-4. MECHANISM DECK SECTION 1
(DECK A : TCM-190RA13A)
(DECK B : TCM-190RB22A)


M102A (DECK A)
M102B (DECK B)
167
166
166
166
#8
#7
163
168
169
not supplied
M101A (DECK A)
M101B (DECK B)
165
162
164
171
170
not supplied
172
160
161
159
157
155
HP101 (DECK A)
HRPE101 (DECK B)
156
153
156
154
151
156
152
158

Ref. No.	Part No.	Description	Remark
151	X-3359-404-1	TABLE ASSY, REEL	
152	3-359-455-01	SPRING, TORSION	
153	3-356-714-01	WASHER	
154	3-356-713-01	WASHER	
155	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY	
156	3-362-308-01	CAP (REEL)	
157	X-3362-078-1	TABLE ASSY (B), REEL	
158	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY	
159	3-359-424-01	GEAR (REV GEAR)	
160	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF	
161	X-3359-406-1	FLYWHEEL (FWD) ASSY	
162	X-3359-410-1	FLYWHEEL (REV) ASSY	
163	3-359-417-01	BELT (FLAT), CAPSTAN	
164	3-575-321-00	RETAINER, THRUST, CAPSTAN	
* 165	3-359-436-01	BASE (THRUST RETAINER), FITTING	

Ref. No.	Part No.	Description	Remark
166	3-359-414-01	SCREW (+PTPWH 2X23)	
167	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
168	3-359-450-01	PLATE, GROUND	
* 169	A-2006-399-A	MD-A BOARD, COMPLETE	
* 169	A-2006-400-A	MD-B BOARD, COMPLETE	
170	3-359-466-01	BELT (FR), SQUARE	
* 171	1-634-841-14	SW-A BOARD (DECK A)	
* 171	1-634-841-14	SW-B BOARD (DECK B)	
172	3-343-419-01	HOLDER (S SENSER A)	
HP101	A-2003-868-F	BASE ASSY, HEAD (DECK A)	
HRPE101	A-2003-838-F	BASE ASSY, HEAD (DECK B)	
M101A	X-3363-501-1	MOTOR ASSY, REEL (DECK A)	
M101B	X-3363-501-1	MOTOR ASSY, REEL (DECK B)	
M102A	X-3359-417-1	MOTOR ASSY, CAPSTAN (DECK A)	
M102B	X-3359-417-1	MOTOR ASSY, CAPSTAN (DECK B)	

6-5. MECHANISM DECK SECTION 2
(DECK A : TCM-190RA13A)
(DECK B : TCM-190RB22A)



Ref. No.	Part No.	Description	Remark
* 201	3-359-425-01	SLIDER (REVERSE SLIDER)	
202	3-359-426-01	LEVER (REVERSE LEVER)	
* 203	3-359-415-01	SLIDER (TRIGGER SLIDER)	
204	3-359-448-01	GEAR (TRIGGER)	
* 205	3-359-427-01	SLIDER (REVERSE SLIDER)	
206	3-359-454-01	SPRING, TORSION	
207	3-359-420-01	GEAR (CAM GEAR)	
208	3-359-429-01	SLIDER (BRAKE PLATE)	
209	3-359-456-01	SPRING(TRIGGER SPRING), TORSION	
210	X-3359-405-1	LEVER (FR ARM) ASSY	
211	3-359-453-01	SPRING (FR ARM), TORSION	
212	3-359-419-01	GEAR (FR GEAR)	
213	3-359-421-01	CLUTCH (REEL DISK)	
214	3-359-418-01	PULLEY (FR PULLEY)	
215	X-3363-790-1	CHASSIS ASSY, MECHANICAL	
216	3-359-469-01	SPACER	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA . . : μA . . uPA . . : μPA . .
  uPB . . : μPB . . uPC . . : μPC . . uPD . . : μPD . .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- G : Germany model
- IT : Italian model
- AUS : Australian model
- EA : Saudi Arabia model
- TR : Tourist model

Ref. No.	Part No.	Description	Remark
*	A-4356-161-A	CONTROL BOARD, COMPLETE (G, IT)	
*	A-4356-192-A	CONTROL BOARD, COMPLETE (E, AUS, EA, TR)	
*	A-4356-203-A	CONTROL BOARD, COMPLETE (US, Canadian)	
*	A-4356-207-A	CONTROL BOARD, COMPLETE (AEP, UK)	
		***********************	
		< CAPACITOR >	
C001	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C003	1-124-907-11	ELECT 10uF 20% 50V	
C004	1-124-910-11	ELECT 47uF 20% 50V	
C021	1-136-153-00	FILM 0.01uF 5% 50V	
C031	1-124-472-11	ELECT 470uF 20% 10V	
C032	1-124-472-11	ELECT 470uF 20% 10V	
C053	1-124-907-11	ELECT 10uF 20% 50V	
C054	1-124-910-11	ELECT 47uF 20% 50V	
C140	1-136-165-00	FILM 0.1uF 5% 50V	
C141	1-136-165-00	FILM 0.1uF 5% 50V	
C142	1-162-282-31	CERAMIC 100PF 10% 50V	
C146	1-124-925-11	ELECT 2.2uF 20% 100V	
C147	1-124-903-11	ELECT 1uF 20% 50V	
C148	1-124-443-00	ELECT 100uF 20% 10V	
C190	1-136-165-00	FILM 0.1uF 5% 50V	
C191	1-136-165-00	FILM 0.1uF 5% 50V	
C192	1-162-282-31	CERAMIC 100PF 10% 50V	
C196	1-124-925-11	ELECT 2.2uF 20% 100V	
C197	1-124-903-11	ELECT 1uF 20% 50V	
C198	1-124-443-00	ELECT 100uF 20% 10V	
C501	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C502	1-164-159-11	CERAMIC 0.1uF 50V	
C505	1-164-159-11	CERAMIC 0.1uF 50V	
C506	1-125-623-11	CAP, DOUBLE LAYEYERS 0.22F	
C507	1-124-907-11	ELECT 10uF 20% 50V	
C508	1-136-173-00	FILM 0.47uF 5% 50V	
C509	1-164-159-11	CERAMIC 0.1uF 50V	
C510	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C520	1-124-907-11	ELECT 10uF 20% 50V	
C521	1-136-165-00	FILM 0.1uF 5% 50V	
		< CONNECTOR >	
* CN501	1-568-850-11	SOCKET, CONNECTOR 7P	
* CN502	1-568-858-11	SOCKET, CONNECTOR 15P	
* CN505	1-568-858-11	SOCKET, CONNECTOR 15P	
		< DIODE >	
D031	8-719-987-63	DIODE 1N4148M	
D032	8-719-987-63	DIODE 1N4148M	
D115	8-719-987-63	DIODE 1N4148M	
D116	8-719-987-63	DIODE 1N4148M	
D501	8-719-987-63	DIODE 1N4148M	
D503	8-719-987-63	DIODE 1N4148M	
D504	8-719-987-63	DIODE 1N4148M	
D505	8-719-987-63	DIODE 1N4148M	
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D509	8-719-987-63	DIODE 1N4148M	
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IC021	8-759-820-62	IC LB1639	
IC102	8-759-805-14	IC LC7822	
IC111	8-759-634-50	IC M5218AL	
IC112	8-759-634-50	IC M5218AL	
IC501	8-759-081-00	IC uPD78011GC-507-AB8	
IC504	8-759-634-97	IC M51953AL	
		< VARIABLE RESISTOR >	
MV021	1-241-999-11	RES, VAR, CARBON 100K/100K (VOLUME)	
		< TRANSISTOR >	
Q001	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q002	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q104	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q154	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q501	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q502	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q503	8-729-900-61	TRANSISTOR DTA114ES	
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q506	8-729-900-61	TRANSISTOR DTA114ES	
Q507	8-729-900-80	TRANSISTOR DTC114ES	

CONTROL HP MAIN

< RESISTOR >

Ref. No.	Part No.	Description				Remark
R001	1-247-876-11	CARBON	75K	5%	1/4W	
R002	1-247-887-00	CARBON	220K	5%	1/4W	
R003	1-247-903-00	CARBON	1M	5%	1/4W	
R010	1-249-417-11	CARBON	1K	5%	1/4W	F
R011	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R012	1-247-895-00	CARBON	470K	5%	1/4W	
R013	1-249-429-11	CARBON	10K	5%	1/4W	
R015	1-249-429-11	CARBON	10K	5%	1/4W	
R021	1-249-413-11	CARBON	470	5%	1/4W	F
R022	1-249-417-11	CARBON	1K	5%	1/4W	F
R023	1-249-417-11	CARBON	1K	5%	1/4W	F
R025	1-249-441-11	CARBON	100K	5%	1/4W	
R026	1-249-441-11	CARBON	100K	5%	1/4W	
R027	1-249-417-11	CARBON	1K	5%	1/4W	F
R028	1-249-417-11	CARBON	1K	5%	1/4W	F
R029	1-249-432-11	CARBON	18K	5%	1/4W	
R030	1-249-432-11	CARBON	18K	5%	1/4W	
R051	1-247-876-11	CARBON	75K	5%	1/4W	
R052	1-247-887-00	CARBON	220K	5%	1/4W	
R053	1-247-903-00	CARBON	1M	5%	1/4W	
R060	1-249-417-11	CARBON	1K	5%	1/4W	F
R061	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R062	1-247-895-00	CARBON	470K	5%	1/4W	
R138	1-249-435-11	CARBON	33K	5%	1/4W	
R139	1-249-432-11	CARBON	18K	5%	1/4W	
R140	1-247-891-00	CARBON	330K	5%	1/4W	
R141	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R146	1-249-441-11	CARBON	100K	5%	1/4W	
R188	1-249-435-11	CARBON	33K	5%	1/4W	
R189	1-249-432-11	CARBON	18K	5%	1/4W	
R190	1-247-891-00	CARBON	330K	5%	1/4W	
R191	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R196	1-249-441-11	CARBON	100K	5%	1/4W	
R501	1-249-417-11	CARBON	1K	5%	1/4W	F
R502	1-247-903-00	CARBON	1M	5%	1/4W	
R506	1-249-429-11	CARBON	10K	5%	1/4W	
R507	1-249-429-11	CARBON	10K	5%	1/4W	
R508	1-249-437-11	CARBON (AEP, UK, G, IT)	47K	5%	1/4W	
R510	1-249-429-11	CARBON	10K	5%	1/4W	
R511	1-249-429-11	CARBON	10K	5%	1/4W	
R512	1-249-429-11	CARBON	10K	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W	F
R533	1-249-417-11	CARBON	1K	5%	1/4W	F
R534	1-249-417-11	CARBON	1K	5%	1/4W	F
R535	1-249-417-11	CARBON	1K	5%	1/4W	F
R538	1-249-417-11	CARBON	1K	5%	1/4W	F
R539	1-249-417-11	CARBON	1K	5%	1/4W	F
R540	1-249-417-11	CARBON	1K	5%	1/4W	F
R542	1-249-417-11	CARBON	1K	5%	1/4W	F
R543	1-249-417-11	CARBON	1K	5%	1/4W	F
R544	1-249-433-11	CARBON	22K	5%	1/4W	
R545	1-249-433-11	CARBON	22K	5%	1/4W	
R546	1-249-429-11	CARBON	10K	5%	1/4W	
R560	1-249-429-11	CARBON	10K	5%	1/4W	

< VIBRATOR >

Ref. No.	Part No.	Description	Remark
X501	1-579-599-21	VIBRATOR, CERAMIC (8.32MHz)	

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* 1-645-182-11 HP BOARD

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< CAPACITOR >

Ref. No.	Part No.	Description				Remark
C10	1-124-910-11	ELECT	47uF	20%	50V	
C11	1-124-910-11	ELECT	47uF	20%	50V	
C12	1-124-910-11	ELECT	47uF	20%	50V	
C13	1-124-910-11	ELECT	47uF	20%	50V	
C009	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C059	1-161-379-00	CERAMIC	0.01uF	20%	25V	

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
* CN051	1-568-852-11	SOCKET, CONNECTOR 9P	
* CN052	1-564-505-11	PLUG, CONNECTOR 2P (US, Canadian)	

< JACK >

Ref. No.	Part No.	Description	Remark
J001	1-562-837-21	JACK (HEADPHONES)	

< RESISTOR >

Ref. No.	Part No.	Description				Remark
R001	1-249-441-11	CARBON	100K	5%	1/4W	
R002	1-249-441-11	CARBON	100K	5%	1/4W	
R017	1-247-749-11	CARBON	560	5%	1/2W	
R067	1-247-749-11	CARBON	560	5%	1/2W	

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* A-4356-159-A MAIN BOARD, COMPLETE (G, IT)
* A-4356-190-A MAIN BOARD, COMPLETE (E, AUS, EA, TR)
* A-4356-201-A MAIN BOARD, COMPLETE (US, Canadian)
* A-4356-205-A MAIN BOARD, COMPLETE (AEP, UK)

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Ref. No.	Part No.	Description	Remark
*	3-309-144-21	HEAT SINK	
	7-682-547-04	SCREW +BVTT 3X6 (S)	
*	4-363-146-71	HEAT SINK, V.OUT (AEP, UK, E, AUS, EA, TR)	

< CAPACITOR >

Ref. No.	Part No.	Description				Remark
C101	1-162-282-31	CERAMIC	100PF	10%	50V	

MAIN

Ref. No.	Part No.	Description				Remark
C102	1-162-282-31	CERAMIC	100PF	10%	50V	
C103	1-162-282-31	CERAMIC	100PF	10%	50V	
C105	1-162-286-31	CERAMIC	220PF	10%	50V	
		(AEP, UK, G, IT)				
C106	1-124-927-11	ELECT	4.7uF	20%	100V	
		(AEP, UK, G, IT)				
C107	1-130-480-00	MYLAR	0.0056uF	5%	50V	
		(AEP, UK, G, IT)				
C108	1-130-473-00	MYLAR	0.0015uF	5%	50V	
		(AEP, UK, G, IT)				
C109	1-124-925-11	ELECT	2.2uF	20%	100V	
		(AEP, UK, G, IT)				
C111	1-124-903-11	ELECT	1uF	20%	50V	
C112	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C113	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C114	1-124-907-11	ELECT	10uF	20%	50V	
C115	1-124-903-11	ELECT	1uF	20%	50V	
C120	1-124-907-11	ELECT	10uF	20%	50V	
C121	1-124-925-11	ELECT	2.2uF	20%	100V	
C122	1-162-286-31	CERAMIC	220PF	10%	50V	
C123	1-136-168-00	FILM	0.18uF	5%	50V	
C124	1-136-168-00	FILM	0.18uF	5%	50V	
C125	1-124-902-00	ELECT	0.47uF	20%	50V	
C126	1-124-902-00	ELECT	0.47uF	20%	50V	
C127	1-130-021-00	MYLAR	0.0018uF	10%	50V	
C128	1-130-021-00	MYLAR	0.0018uF	10%	50V	
C129	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C130	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C131	1-136-154-00	FILM	0.012uF	5%	50V	
C132	1-136-154-00	FILM	0.012uF	5%	50V	
C133	1-136-158-00	FILM	0.027uF	5%	50V	
C134	1-136-158-00	FILM	0.027uF	5%	50V	
C135	1-136-163-00	FILM	0.068uF	5%	50V	
C136	1-136-163-00	FILM	0.068uF	5%	50V	
C138	1-162-286-31	CERAMIC	220PF	10%	50V	
C139	1-124-903-11	ELECT	1uF	20%	50V	
C151	1-162-282-31	CERAMIC	100PF	10%	50V	
C152	1-162-282-31	CERAMIC	100PF	10%	50V	
C153	1-162-282-31	CERAMIC	100PF	10%	50V	
C155	1-162-286-31	CERAMIC	220PF	10%	50V	
		(AEP, UK, G, IT)				
C156	1-124-927-11	ELECT	4.7uF	20%	100V	
		(AEP, UK, G, IT)				
C157	1-130-480-00	MYLAR	0.0056uF	5%	50V	
		(AEP, UK, G, IT)				
C158	1-130-473-00	MYLAR	0.0015uF	5%	50V	
		(AEP, UK, G, IT)				
C159	1-124-925-11	ELECT	2.2uF	20%	100V	
		(AEP, UK, G, IT)				
C161	1-124-477-11	ELECT	47uF	20%	25V	
C162	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C163	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C164	1-124-907-11	ELECT	10uF	20%	50V	
C170	1-124-907-11	ELECT	10uF	20%	50V	
C171	1-124-925-11	ELECT	2.2uF	20%	100V	
C172	1-162-286-31	CERAMIC	220PF	10%	50V	
C173	1-136-168-00	FILM	0.18uF	5%	50V	
C174	1-136-168-00	FILM	0.18uF	5%	50V	
C175	1-124-902-00	ELECT	0.47uF	20%	50V	
C176	1-124-902-00	ELECT	0.47uF	20%	50V	
C177	1-130-021-00	MYLAR	0.0018uF	10%	50V	
C178	1-130-021-00	MYLAR	0.0018uF	10%	50V	
C179	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C180	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C181	1-136-154-00	FILM	0.012uF	5%	50V	
C182	1-136-154-00	FILM	0.012uF	5%	50V	
C183	1-136-158-00	FILM	0.027uF	5%	50V	
C184	1-136-158-00	FILM	0.027uF	5%	50V	
C185	1-136-163-00	FILM	0.068uF	5%	50V	
C186	1-136-163-00	FILM	0.068uF	5%	50V	
C188	1-162-286-31	CERAMIC	220PF	10%	50V	
C201	1-162-282-31	CERAMIC	100PF	10%	50V	
		(AEP, UK, G, IT)				
C205	1-162-282-31	CERAMIC	100PF	10%	50V	
		(AEP, UK, G, IT)				
C494	1-161-379-00	CERAMIC	0.01uF	20%	25V	
		(AEP, UK, G, IT)				
C240	1-162-282-31	CERAMIC	100PF	10%	50V	(G, IT)
C290	1-162-282-31	CERAMIC	100PF	10%	50V	(G, IT)
C901	1-126-969-91	ELECT	220uF	20%	50V	
		(US, Canadian)				
C901	1-126-970-91	ELECT	330uF	20%	50V	
		(EXCEPT US, Canadian)				
C902	1-124-478-11	ELECT	100uF	20%	25V	
C903	1-126-943-11	ELECT	2200uF	20%	25V	
C904	1-126-943-11	ELECT	2200uF	20%	25V	
C905	1-124-907-11	ELECT	10uF	20%	50V	
C906	1-124-907-11	ELECT	10uF	20%	50V	
C907	1-124-907-11	ELECT	10uF	20%	50V	
C908	1-124-907-11	ELECT	10uF	20%	50V	
C909	1-124-907-11	ELECT	10uF	20%	50V	
C911	1-124-907-11	ELECT	10uF	20%	50V	
C912	1-124-907-11	ELECT	10uF	20%	50V	
C913	1-124-907-11	ELECT	10uF	20%	50V	
C914	1-124-636-00	ELECT	3300uF	20%	25V	
C915	1-124-636-00	ELECT	3300uF	20%	25V	
C916	1-124-893-11	ELECT	2200uF	20%	10V	
C917	1-124-893-11	ELECT	2200uF	20%	10V	
C921	1-126-969-91	ELECT	220uF	20%	50V	
		(US, Canadian)				

MAIN

Ref. No.	Part No.	Description	Remark
C921	1-126-970-91	ELECT 330uF 20% 50V	
		(EXCEPT US, Canadian)	
C922	1-126-101-11	ELECT 100uF 20% 16V	
C923	1-124-907-11	ELECT 10uF 20% 50V	
C924	1-124-927-11	ELECT 4.7uF 20% 100V	
C926	1-126-176-11	ELECT 220uF 20% 10V	
C928	1-124-477-11	ELECT 47uF 20% 25V	
C930	1-164-159-11	CERAMIC 0.1uF 50V	
C931	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN101	1-566-859-11	SOCKET, CONNECTOR 15P (SYSTEM CONTROL 1)	
* CN103	1-569-624-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL 2)	
* CN104	1-568-832-11	SOCKET, CONNECTOR 13P	
* CN105	1-564-496-11	PIN, CONNECTOR 3P	
* CN106	1-564-506-11	PLUG, CONNECTOR 3P	
* CN108	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN109	1-568-826-11	SOCKET, CONNECTOR 7P	
* CN110	1-695-649-11	CONNECTOR, BOARD TO BOARD 10P	
* CN111	1-568-455-11	PIN, CONNECTOR (PC BOARD) 10P	
		< DIODE >	
D901	8-719-200-82	DIODE 11ES2	
D902	8-719-200-82	DIODE 11ES2	
D903	8-719-200-82	DIODE 11ES2	
D904	8-719-200-82	DIODE 11ES2	
D905	8-719-200-82	DIODE 11ES2	
D906	8-719-200-82	DIODE 11ES2	
D907	8-719-910-25	DIODE HZ12B2L	
D908	8-719-987-63	DIODE 1N4148M	
D909	8-719-200-82	DIODE 11ES2	
D910	8-719-200-82	DIODE 11ES2	
D911	8-719-200-82	DIODE 11ES2	
D912	8-719-200-82	DIODE 11ES2	
D913	8-719-987-63	DIODE 1N4148M	
D914	8-719-987-63	DIODE 1N4148M	
D916	8-719-987-63	DIODE 1N4148M	
D920	8-719-933-41	DIODE HZS6C3L	
D921	8-719-933-54	DIODE HZS9A2L	
		< FUSE >	
⚠F901	1-532-781-11	FUSE, MICRO 3.15A 125V (US, Canadian)	
⚠F901	1-532-844-21	LINK, IC 3.15A (EXCEPT US, Canadian)	
⚠F902	1-532-781-11	FUSE, MICRO 3.15A 125V (US, Canadian)	
⚠F902	1-532-844-21	LINK, IC 3.15A (EXCEPT US, Canadian)	
		< IC >	
IC101	8-759-805-14	IC LC7822	
IC104	8-759-603-14	IC M5229P	
IC105	8-759-081-01	IC NJU7305L	
IC106	8-759-603-14	IC M5229P	
IC110	8-759-634-50	IC M5218AL (AEP, UK, G, IT)	
IC901	8-759-602-66	IC M5230L-A	
IC902	8-759-231-53	IC TA7805S	
		< JACK >	
J101	1-565-320-61	JACK, PIN 6P	
		(VIDEO/PHONO/DAT IN, DAT OUT)	
		< TRANSISTOR >	
Q107	8-729-900-61	TRANSISTOR DTA114ES	
Q108	8-729-224-62	TRANSISTOR 2SK246-GR	
Q109	8-729-900-80	TRANSISTOR DTC114ES	
Q901	8-729-209-15	TRANSISTOR 2SD2012	
Q902	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q903	8-729-900-80	TRANSISTOR DTC114ES	
Q904	8-729-209-15	TRANSISTOR 2SD2012	
Q907	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q908	8-729-209-15	TRANSISTOR 2SD2012	
Q909	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q910	8-729-900-80	TRANSISTOR DTC114ES	
Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q912	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q913	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q929	8-729-900-61	TRANSISTOR DTA114ES	
Q930	8-729-900-80	TRANSISTOR DTC114ES	
		< RESISTOR >	
R101	1-249-437-11	CARBON 47K 5% 1/4W	
R102	1-249-437-11	CARBON 47K 5% 1/4W	
R103	1-249-432-11	CARBON 18K 5% 1/4W	
R104	1-249-437-11	CARBON 47K 5% 1/4W	
R105	1-249-417-11	CARBON 1K 5% 1/4W	F
		(AEP, UK, G, IT)	
R106	1-249-417-11	CARBON 1K 5% 1/4W	F
		(AEP, UK, G, IT)	
R107	1-247-897-11	CARBON 560K 5% 1/4W	
		(AEP, UK, G, IT)	
R108	1-249-437-11	CARBON 47K 5% 1/4W	
		(AEP, UK, G, IT)	
R110	1-249-430-11	CARBON 12K 5% 1/4W	
		(AEP, UK, G, IT)	
R111	1-247-883-00	CARBON 150K 5% 1/4W	
R112	1-249-437-11	CARBON 47K 5% 1/4W	
R113	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R114	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R115	1-249-437-11	CARBON 47K 5% 1/4W	
R120	1-249-417-11	CARBON 1K 5% 1/4W	F

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

Ref. No.	Part No.	Description				Remark
R121	1-249-417-11	CARBON	1K	5%	1/4W	F
R122	1-249-417-11	CARBON	1K	5%	1/4W	F
R125	1-247-887-00	CARBON	220K	5%	1/4W	
R126	1-247-887-00	CARBON	220K	5%	1/4W	
R127	1-249-417-11	CARBON	1K	5%	1/4W	F
R128	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R129	1-247-903-00	CARBON	1M	5%	1/4W	
R130	1-247-903-00	CARBON	1M	5%	1/4W	
R131	1-247-903-00	CARBON	1M	5%	1/4W	
R132	1-247-903-00	CARBON	1M	5%	1/4W	
R133	1-247-903-00	CARBON	1M	5%	1/4W	
R134	1-247-903-00	CARBON	1M	5%	1/4W	
R135	1-247-903-00	CARBON	1M	5%	1/4W	
R136	1-247-895-00	CARBON	470K	5%	1/4W	
R137	1-249-417-11	CARBON	1K	5%	1/4W	F
R151	1-249-437-11	CARBON	47K	5%	1/4W	
R152	1-249-437-11	CARBON	47K	5%	1/4W	
R153	1-249-432-11	CARBON	18K	5%	1/4W	
R154	1-249-437-11	CARBON	47K	5%	1/4W	
R155	1-249-417-11	CARBON	1K	5%	1/4W	F
		(AEP, UK, G, IT)				
R156	1-249-417-11	CARBON	1K	5%	1/4W	F
		(AEP, UK, G, IT)				
R157	1-247-897-11	CARBON	560K	5%	1/4W	
		(AEP, UK, G, IT)				
R158	1-249-437-11	CARBON	47K	5%	1/4W	
		(AEP, UK, G, IT)				
R160	1-249-430-11	CARBON	12K	5%	1/4W	
		(AEP, UK, G, IT)				
R161	1-249-417-11	CARBON	1K	5%	1/4W	F
R162	1-249-417-11	CARBON	1K	5%	1/4W	F
R175	1-247-887-00	CARBON	220K	5%	1/4W	
R176	1-247-887-00	CARBON	220K	5%	1/4W	
R177	1-249-417-11	CARBON	1K	5%	1/4W	F
R178	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R179	1-247-903-00	CARBON	1M	5%	1/4W	
R180	1-247-903-00	CARBON	1M	5%	1/4W	
R181	1-247-903-00	CARBON	1M	5%	1/4W	
R182	1-247-903-00	CARBON	1M	5%	1/4W	
R183	1-247-903-00	CARBON	1M	5%	1/4W	
R184	1-247-903-00	CARBON	1M	5%	1/4W	
R185	1-247-903-00	CARBON	1M	5%	1/4W	
R186	1-247-895-00	CARBON	470K	5%	1/4W	
R187	1-249-417-11	CARBON	1K	5%	1/4W	F
R201	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R202	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R203	1-249-437-11	CARBON	47K	5%	1/4W	
		(AEP, UK, G, IT)				
R204	1-249-437-11	CARBON	47K	5%	1/4W	
		(AEP, UK, G, IT)				
R205	1-249-432-11	CARBON	18K	5%	1/4W	
R207	1-249-425-11	CARBON	4.7K	5%	1/4W	F
		(US, Canadian, E, AUS, EA, TR)				
R207	1-249-417-11	CARBON	1K	5%	1/4W	F
		(AEP, UK, G, IT)				
R208	1-249-425-11	CARBON	4.7K	5%	1/4W	F
		(US, Canadian, E, AUS, EA, TR)				
R208	1-249-417-11	CARBON	1K	5%	1/4W	F
		(AEP, UK, G, IT)				
R209	1-249-437-11	CARBON	47K	5%	1/4W	
R210	1-249-437-11	CARBON	47K	5%	1/4W	
R211	1-249-437-11	CARBON	47K	5%	1/4W	
R212	1-249-437-11	CARBON	47K	5%	1/4W	
R213	1-249-437-11	CARBON	47K	5%	1/4W	
R214	1-249-437-11	CARBON	47K	5%	1/4W	
R221	1-249-417-11	CARBON	1K	5%	1/4W	F
R223	1-249-417-11	CARBON	1K	5%	1/4W	F
R255	1-249-432-11	CARBON	18K	5%	1/4W	
R902	1-249-413-11	CARBON	470	5%	1/4W	F
R903	1-247-903-00	CARBON	1M	5%	1/4W	
R904	1-249-413-11	CARBON	470	5%	1/4W	F
R905	1-249-431-11	CARBON	15K	5%	1/4W	
R906	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R907	1-249-431-11	CARBON	15K	5%	1/4W	
R908	1-249-431-11	CARBON	15K	5%	1/4W	
R911	1-249-429-11	CARBON	10K	5%	1/4W	
R919	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R920	1-212-857-00	FUSIBLE	10	5%	1/4W	F
⚠R921	1-212-974-00	FUSIBLE	47	5%	1/2W	F
R923	1-249-413-11	CARBON	470	5%	1/4W	F
R924	1-249-441-11	CARBON	100K	5%	1/4W	
R925	1-249-433-11	CARBON	22K	5%	1/4W	
R928	1-249-429-11	CARBON	10K	5%	1/4W	
R929	1-249-429-11	CARBON	10K	5%	1/4W	
R930	1-249-429-11	CARBON	10K	5%	1/4W	
R932	1-219-138-91	FUSIBLE	0.47	10%	1/4W	
R933	1-219-138-91	FUSIBLE	0.47	10%	1/4W	
R940	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R941	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R948	1-249-413-11	CARBON	470	5%	1/4W	F
R949	1-249-441-11	CARBON	100K	5%	1/4W	
R990	1-219-138-21	FUSIBLE	0.47	10%	1/4W	

< TEST PIN >

* TP101 1-565-835-11 SOCKET, CONNECTOR 3P

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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MD-A **MD-B**

Ref. No.	Part No.	Description				Remark
*	A-2006-399-A	MD-A BOARD, COMPLETE				
		********************				
		< CAPACITOR >				
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C12	1-136-157-00	FILM	0.022uF	5%	50V	
C13	1-124-234-00	ELECT	22uF	20%	16V	
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C22	1-136-157-00	FILM	0.022uF	5%	50V	
C23	1-124-234-00	ELECT	22uF	20%	16V	
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C31	1-124-234-00	ELECT	22uF	20%	16V	
C32	1-124-234-00	ELECT	22uF	20%	16V	
C71	1-124-499-11	ELECT, NONPOLAR R	1uF	20%	50V	
		< CONNECTOR >				
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD				
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P				
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P				
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P				
		< IC >				
IC31A	8-759-106-02	IC	uPC4570G2			
		< JUMPER RESISTOR >				
JW1	1-216-295-00	METAL CHIP	0	5%	1/10W	
JW51	1-216-296-00	METAL CHIP	0	5%	1/8W	
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W	
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W	
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W	
		< TRANSISTOR >				
Q71A	8-729-602-36	TRANSISTOR	2SA1602-F			
		< RESISTOR >				
R11	1-216-099-00	METAL CHIP	120K	5%	1/10W	
R12	1-216-025-00	METAL CHIP	100	5%	1/10W	
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W	
R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R21	1-216-099-00	METAL CHIP	120K	5%	1/10W	
R22	1-216-025-00	METAL CHIP	100	5%	1/10W	
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W	
R24	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R31	1-216-033-00	METAL CHIP	220	5%	1/10W	
R32	1-216-033-00	METAL CHIP	220	5%	1/10W	
R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R73	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R74	1-216-089-00	METAL CHIP	47K	5%	1/10W	
		< VARIABLE RESISTOR >				
RV11A	1-241-627-11	RES, ADJ, CARBON 1K				
RV21A	1-241-627-11	RES, ADJ, CARBON 1K				
RV71A	1-241-630-11	RES, ADJ, CARBON 10K				
RV72A	1-241-630-11	RES, ADJ, CARBON 10K				

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Ref. No.	Part No.	Description				Remark
*	A-2006-400-A	MD-B BOARD, COMPLETE				
		*******************				
		< CAPACITOR >				
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C12	1-136-157-00	FILM	0.022uF	5%	50V	
C13	1-124-234-00	ELECT	22uF	20%	16V	
C14	1-136-273-91	FILM	75PF	5%	630V	
C15	1-164-080-11	CERAMIC	390PF	10%	50V	
C17	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C22	1-136-157-00	FILM	0.022uF	5%	50V	
C23	1-124-234-00	ELECT	22uF	20%	16V	
C24	1-136-273-91	FILM	75PF	5%	630V	
C25	1-164-080-11	CERAMIC	390PF	10%	50V	
C27	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C31	1-124-234-00	ELECT	22uF	20%	16V	
C32	1-124-234-00	ELECT	22uF	20%	16V	
C33	1-124-234-00	ELECT	22uF	20%	16V	
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V	
C54	1-136-559-11	FILM	0.0047uF	5%	630V	
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V	
C57	1-164-346-11	CERAMIC CHIP	1uF		16V	
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V	
C71	1-124-499-11	ELECT, NONPOLAR R	1uF	20%	50V	
		< CONNECTOR >				
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD				
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD				
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P				
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P				
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P				
		< DIODE >				
D31	8-719-016-74	DIODE	1SS352			

< IC >

Ref. No.	Part No.	Description	Remark
IC31B	8-759-106-02	IC uPC4570G2	

< JUMPER RESISTOR >

Ref. No.	Part No.	Description	Remark
JW1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW3	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW5	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW6	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW7	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW55	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW56	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW57	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW58	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW59	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW60	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW61	1-216-296-00	METAL CHIP 0 5% 1/8W	

< COIL >

Ref. No.	Part No.	Description	Remark
L11	1-410-780-11	INDUCTOR 27mH	
L21	1-410-780-11	INDUCTOR 27mH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q51	8-729-808-01	TRANSISTOR 2SD1622-S	
Q52	8-729-808-01	TRANSISTOR 2SD1622-S	
Q53	8-729-808-01	TRANSISTOR 2SD1622-S	
Q71B	8-729-602-36	TRANSISTOR 2SA1602-F	

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
⚠R15	1-249-430-11	CARBON 12K 5% 1/4W	F
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
⚠R25	1-249-430-11	CARBON 12K 5% 1/4W	F
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
⚠R41	1-249-393-11	CARBON 10 5% 1/4W	F
⚠R42	1-249-393-11	CARBON 10 5% 1/4W	F
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R52	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	

< VARIABLE RESISTOR >

Ref. No.	Part No.	Description	Remark
RV11B	1-241-627-11	RES, ADJ, CARBON 1K	
RV12B	1-238-551-11	RES, ADJ, CARBON 220K	
RV21	1-241-627-11	RES, ADJ, CARBON 1K	
RV22	1-238-551-11	RES, ADJ, CARBON 220K	
RV71B	1-241-630-11	RES, ADJ, CARBON 10K	
RV72B	1-241-630-11	RES, ADJ, CARBON 10K	

< RELAY >

Ref. No.	Part No.	Description	Remark
RY31	1-515-726-11	RELAY	

< TRANSFORMER >

Ref. No.	Part No.	Description	Remark
T51	1-406-419-11	COIL, BIAS OSCILLATION	

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Ref. No.	Part No.	Description	Remark
*	A-4356-158-A	POWER AMP BOARD, COMPLETE	(G, IT)
*	A-4356-189-A	POWER AMP BOARD, COMPLETE	(E, EA, TR)
*	A-4356-196-A	POWER AMP BOARD, COMPLETE	(US, Canadian)
*	A-4356-200-A	POWER AMP BOARD, COMPLETE	(AEP, UK, AUS)

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< CAPACITOR >

Ref. No.	Part No.	Description	Remark
C702	1-126-176-11	ELECT 220uF 20% 10V	
C704	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C706	1-124-927-11	ELECT 4.7uF 20% 100V	
C707	1-124-478-11	ELECT 100uF 20% 25V	
C801	1-124-443-00	ELECT 100uF 20% 10V	
C802	1-162-290-31	CERAMIC 470PF 10% 50V	
C803	1-124-122-11	ELECT 100uF 20% 50V	
C804	1-162-282-31	CERAMIC 100PF 10% 50V	
C806	1-124-910-11	ELECT 47uF 20% 50V	
C807	1-124-122-11	ELECT 100uF 20% 50V	
C809	1-126-233-11	ELECT 22uF 20% 50V	
C810	1-136-165-00	FILM 0.1uF 5% 50V	
C811	1-136-165-00	FILM 0.1uF 5% 50V	
C812	1-136-165-00	FILM 0.1uF 5% 50V	
C814	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C816	1-126-233-11	ELECT 22uF 20% 50V	
C818	1-126-233-11	ELECT 22uF 20% 50V	

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POWER AMP | POWER

Ref. No.	Part No.	Description				Remark
C819	1-124-903-11	ELECT	1uF	20%	50V	
C851	1-124-443-00	ELECT	100uF	20%	10V	
C852	1-162-290-31	CERAMIC	470PF	10%	50V	
C853	1-124-122-11	ELECT	100uF	20%	50V	
C854	1-162-282-31	CERAMIC	100PF	10%	50V	
C856	1-124-910-11	ELECT	47uF	20%	50V	
C860	1-136-165-00	FILM	0.1uF	5%	50V	
C863	1-136-165-00	FILM	0.1uF	5%	50V	
C866	1-126-233-11	ELECT	22uF	20%	50V	

< CONNECTOR >

Ref. No.	Part No.	Description
* CN801	1-564-508-11	PLUG, CONNECTOR 5P
* CN802	1-564-507-11	PLUG, CONNECTOR 4P
CN803	1-564-507-11	PLUG, CONNECTOR 4P
* CN804	1-564-509-11	PLUG, CONNECTOR 6P

< DIODE >

Ref. No.	Part No.	Description	
D801	8-719-987-63	DIODE	1N4148M
D802	8-719-987-63	DIODE	1N4148M
D851	8-719-987-63	DIODE	1N4148M

< IC >

Ref. No.	Part No.	Description	
IC701	8-759-111-68	IC	uPC1237HA
IC801	8-749-920-09	IC	STK-4152MK2K

< COIL >

Ref. No.	Part No.	Description
* L801	1-420-872-00	COIL, AIR CORE
* L851	1-420-872-00	COIL, AIR CORE

< TRANSISTOR >

Ref. No.	Part No.	Description	
Q701	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q801	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q851	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA

< RESISTOR >

Ref. No.	Part No.	Description				Remark
R701	1-249-433-11	CARBON	22K	5%	1/4W	
R702	1-249-441-11	CARBON	100K	5%	1/4W	
R703	1-249-433-11	CARBON	22K	5%	1/4W	
R704	1-249-433-11	CARBON	22K	5%	1/4W	
R705	1-249-429-11	CARBON	10K	5%	1/4W	
R712	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R800	1-219-138-91	FUSIBLE	0.47	10%	1/4W	F
R801	1-249-414-11	CARBON	560	5%	1/4W	F
R802	1-249-438-11	CARBON	56K	5%	1/4W	
R803	1-249-414-11	CARBON	560	5%	1/4W	F
R804	1-249-438-11	CARBON	56K	5%	1/4W	
R805	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R806	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠R807	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R808	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R809	1-217-151-00	RES, METAL PLATE 0.22				
R810	1-247-752-11	CARBON	1K	5%	1/2W	
R811	1-247-752-11	CARBON	1K	5%	1/2W	
R812	1-247-727-11	CARBON	10	5%	1/2W	
R813	1-249-417-11	CARBON	1K	5%	1/4W	F
R814	1-249-431-11	CARBON	15K	5%	1/4W	
R815	1-249-441-11	CARBON	100K	5%	1/4W	
R816	1-249-438-11	CARBON	56K	5%	1/4W	
R818	1-249-441-11	CARBON	100K	5%	1/4W	
R819	1-249-441-11	CARBON	100K	5%	1/4W	
R820	1-249-435-11	CARBON	33K	5%	1/4W	
R821	1-249-429-11	CARBON	10K	5%	1/4W	
R822	1-247-903-00	CARBON	1M	5%	1/4W	
R823	1-249-431-11	CARBON	15K	5%	1/4W	
R824	1-249-429-11	CARBON	10K	5%	1/4W	
R825	1-247-883-00	CARBON	150K	5%	1/4W	
R851	1-249-414-11	CARBON	560	5%	1/4W	F
R852	1-249-438-11	CARBON	56K	5%	1/4W	
R853	1-249-414-11	CARBON	560	5%	1/4W	F
R854	1-249-438-11	CARBON	56K	5%	1/4W	
R855	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R856	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠R859	1-217-151-00	RES, METAL PLATE 0.22				
R862	1-247-727-11	CARBON	10	5%	1/2W	
R863	1-249-417-11	CARBON	1K	5%	1/4W	F
R864	1-249-431-11	CARBON	15K	5%	1/4W	
R865	1-249-441-11	CARBON	100K	5%	1/4W	
R866	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R876	1-212-881-11	FUSIBLE	100	5%	1/4W	F

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Ref. No.	Part No.	Description
*	A-4356-156-A	POWER BOARD, COMPLETE (G, IT)
*	A-4356-186-A	POWER BOARD, COMPLETE (E, TR)
*	A-4356-187-A	POWER BOARD, COMPLETE (EA)
*	A-4356-194-A	POWER BOARD, COMPLETE (US, Canadian)
*	A-4356-197-A	POWER BOARD, COMPLETE (AEP, AUS)
*	A-4356-198-A	POWER BOARD, COMPLETE (UK)

****

Ref. No.	Part No.	Description
*	1-533-213-31	HOLDER, FUSE

< CAPACITOR >

Ref. No.	Part No.	Description			
C918	1-124-628-11	ELECT	220uF	20%	100V
C919	1-124-628-11	ELECT	220uF	20%	100V
C920	1-123-605-00	ELECT	100uF	20%	100V
C925	1-164-159-11	CERAMIC	0.1uF		50V
C932	1-164-159-11	CERAMIC (US, Canadian)	0.1uF		50V
C933	1-123-605-00	ELECT	100uF	20%	100V
C934	1-124-907-11	ELECT	10uF	20%	50V

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POWER

Ref. No.	Part No.	Description	Remark
C935	1-124-907-11	ELECT 10uF 20% 50V	
C936	1-164-159-11	CERAMIC 0.1uF 50V	
C937	1-124-907-11	ELECT 10uF 20% 50V (US, Canadian)	
C951	1-136-153-00	FILM 0.01uF 5% 50V (G, IT)	
C952	1-136-153-00	FILM 0.01uF 5% 50V (G, IT)	
C953	1-126-224-11	ELECT 4700uF 20% 42V	
C954	1-126-224-11	ELECT 4700uF 20% 42V	
C955	1-136-171-00	FILM 0.33uF 5% 50V	
C956	1-136-171-00	FILM 0.33uF 5% 50V	
		< CONNECTOR >	
* CN951	1-564-321-00	PIN, CONNECTOR 2P (EXCEPT, EA, TR)	
CN951	1-568-106-11	PIN, CONNECTOR 4P (E, EA, TR)	
* CN952	1-564-505-11	PLUG, CONNECTOR 2P (US, Canadian)	
* CN953	1-568-828-11	SOCKET, CONNECTOR 9P	
* CN954	1-564-510-11	PLUG, CONNECTOR 7P	
* CN956	1-564-337-00	PIN, CONNECTOR 3P	
		< DIODE >	
D918	8-719-002-73	DIODE UZL-36M	
D919	8-719-934-22	DIODE HZS30-2L (EXCEPT Canadian)	
D919	8-719-934-18	DIODE HZS27-2L (Canadian)	
D931	8-719-987-63	DIODE 1N4148M (US, Canadian)	
D932	8-719-987-63	DIODE 1N4148M (US, Canadian)	
D940	8-719-200-82	DIODE 11ES2	
D941	8-719-200-82	DIODE 11ES2	
D942	8-719-200-82	DIODE 11ES2	
D943	8-719-200-82	DIODE 11ES2	
D944	8-719-014-80	DIODE UZP-6.2BC	
D945	8-719-014-80	DIODE UZP-6.2BC	
D951	8-719-987-63	DIODE 1N4148M	
D952	8-719-987-63	DIODE 1N4148M	
D953	8-719-302-38	DIODE RBV-602-01	
D954	8-719-987-63	DIODE 1N4148M	
		< IC >	
IC910	8-759-987-16	IC LM393P (US, Canadian)	
		< JACK >	
⚠J951	1-526-930-11	INLET, AC (~ AC IN) (US, Canadian, E, TR)	
⚠J951	1-526-931-11	INLET, AC (~ AC IN) (AEP, UK, G, IT, AUS, EA)	
J952	1-537-151-11	TERMINAL BOARD (SPEAKER)	
* J953	1-565-352-91	JACK, PIN 2P (SURROUND SPEAKER) (UK)	
		< COIL >	
⚠L901	1-424-485-11	FILTER, LINE (AEP, UK, G, IT, AUS)	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q915	8-729-188-23	TRANSISTOR 2SD882-P	
Q916	8-729-177-22	TRANSISTOR 2SB772-Q	
Q952	8-729-801-84	TRANSISTOR 2SB1013-4 (US, Canadian)	
Q953	8-729-111-29	TRANSISTOR 2SD1616A-K	
		< RESISTOR >	
R901	1-202-725-00	SOLID 3.3M 10% 1/2W (US, Canadian)	
⚠R912	1-215-868-00	METAL OXIDE 680 5% 1W	F
⚠R913	1-215-869-11	METAL OXIDE 1K 5% 1W	F
R914	1-249-429-11	CARBON 10K 5% 1/4W	
R915	1-249-429-11	CARBON 10K 5% 1/4W	
R916	1-249-434-11	CARBON 27K 5% 1/4W	
R917	1-247-895-00	CARBON 470K 5% 1/4W	
R918	1-247-895-00	CARBON 470K 5% 1/4W	
R931	1-249-429-11	CARBON 10K 5% 1/4W (US, Canadian)	
R934	1-249-441-11	CARBON 100K 5% 1/4W (US, Canadian)	
R935	1-249-429-11	CARBON 10K 5% 1/4W (US, Canadian)	
R936	1-249-441-11	CARBON 100K 5% 1/4W (US, Canadian)	
R937	1-249-429-11	CARBON 10K 5% 1/4W (US, Canadian)	
R951	1-247-727-11	CARBON 10 5% 1/2W (G, IT)	F
R952	1-247-727-11	CARBON 10 5% 1/2W (G, IT)	F
⚠R953	1-247-749-11	CARBON 560 5% 1/2W	F
R954	1-249-441-11	CARBON 100K 5% 1/4W	
R955	1-249-429-11	CARBON 10K 5% 1/4W	
R956	1-249-429-11	CARBON 10K 5% 1/4W	
R957	1-249-429-11	CARBON 10K 5% 1/4W (US, Canadian)	
R958	1-249-429-11	CARBON 10K 5% 1/4W (US, Canadian)	
⚠R991	1-219-138-91	FUSIBLE 0.47 10% 1/4W	F
		< RELAY >	
RY901	1-515-790-11	RELAY	
		< SWITCH >	
⚠S951	1-692-328-11	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (E, EA, TR)	

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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SW-A SW-B TA PANEL

Ref. No.	Part No.	Description	Remark
*	1-634-841-14	SW-A BOARD	
		**********	
	3-343-419-01	HOLDER (S SENSER A)	
		< CONNECTOR >	
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
		< IC >	
IC81A	8-719-710-03	DIODE NJL5165K-B	
		< RESISTOR >	
R84	1-249-417-11	CARBON 1K 5% 1/4W	F
R85	1-249-408-11	CARBON 180 5% 1/4W	F
		< SWITCH >	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (Cr02 DET)	
S86	1-571-281-21	SWITCH, LEAF (HALF DET)	

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Ref. No.	Part No.	Description	Remark
*	1-634-841-14	SW-B BOARD	
		**********	
	3-343-419-01	HOLDER (S SENSER A)	
		< CONNECTOR >	
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
		< IC >	
IC81B	8-719-710-03	DIODE NJL5165K-B	
		< RESISTOR >	
R81	1-249-414-11	CARBON 560 5% 1/4W	F
R82	1-247-818-11	CARBON 300 5% 1/4W	
R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
R84	1-249-417-11	CARBON 1K 5% 1/4W	F
R85	1-249-408-11	CARBON 180 5% 1/4W	F
		< SWITCH >	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (Cr02 DET)	
S83	1-571-281-21	SWITCH, LEAF (METAL DET)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF (SIDE A))	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF (SIDE B))	
S86	1-571-281-21	SWITCH, LEAF (HALF DET)	

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Ref. No.	Part No.	Description	Remark
*	A-4356-160-A	TA PANEL BOARD, COMPLETE (G, IT)	
*	A-4356-191-A	TA PANEL BOARD, COMPLETE (E, EA, TR)	
*	A-4356-202-A	TA PANEL BOARD, COMPLETE (US, Canadian)	
*	A-4356-206-A	TA PANEL BOARD, COMPLETE (AEP, UK, AUS)	
		***********************	
*	4-921-941-01	CUSHION (FL)	
*	4-953-602-01	HOLDER (FL TUBE)	
		< CAPACITOR >	
C522	1-164-159-11	CERAMIC 0.1uF	50V
C523	1-164-159-11	CERAMIC 0.1uF	50V
		< CONNECTOR >	
* CN521	1-568-858-11	SOCKET, CONNECTOR 15P	
		< DIODE >	
D520	8-719-301-37	LED SEL2210S-CD (DIRECT)	
D521	8-719-301-37	LED SEL2210S-CD (TUNER/PHONO)	
D522	8-719-301-37	LED SEL2210S-CD (CD/TUNER)	
D523	8-719-301-37	LED SEL2210S-CD (DAT/CD)	
D524	8-719-301-37	LED SEL2210S-CD (TAPE/DAT)	
D525	8-719-301-37	LED SEL2210S-CD (VIDEO/TAPE)	
D526	8-719-301-37	LED SEL2210S-CD (ON STANDBY)	
		< FLUORESCENT INDICATOR >	
FL521	1-519-735-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC551	8-759-075-35	IC TD62C950RF	
		< RESISTOR >	
R520	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R521	1-249-413-11	CARBON 470 5% 1/4W	F
R522	1-249-415-11	CARBON 680 5% 1/4W	F
R523	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R524	1-249-413-11	CARBON 470 5% 1/4W	F
R525	1-249-415-11	CARBON 680 5% 1/4W	F
R526	1-249-417-11	CARBON 1K 5% 1/4W	F
R527	1-249-414-11	CARBON 560 5% 1/4W	F
R528	1-249-414-11	CARBON 560 5% 1/4W	F
R550	1-249-417-11	CARBON 1K 5% 1/4W	F
R551	1-249-417-11	CARBON 1K 5% 1/4W	F
R552	1-249-417-11	CARBON 1K 5% 1/4W	F
R553	1-249-417-11	CARBON 1K 5% 1/4W	F
R554	1-249-437-11	CARBON 47K 5% 1/4W	

< SWITCH >

Ref. No.	Part No.	Description	Remark
S520	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
S521	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S522	1-554-303-21	SWITCH, TACTILE (DIRECT)	
S523	1-554-303-21	SWITCH, TACTILE (FUNCTION)	
S524	1-554-303-21	SWITCH, TACTILE (+)	
S525	1-554-303-21	SWITCH, TACTILE (PRESET)	
S526	1-554-303-21	SWITCH, TACTILE (-)	

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Ref. No.	Part No.	Description	Remark
*	A-4356-164-A	TC MAIN BOARD, COMPLETE (G, IT)	
*	A-4356-210-A	TC MAIN BOARD, COMPLETE (EXCEPT G, IT)	

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< CAPACITOR >

Ref. No.	Part No.	Description	Remark
C201	1-136-158-00	FILM 0.027uF 5%	50V
C202	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C203	1-124-254-00	ELECT 0.68uF 20%	50V
C204	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C205	1-124-925-11	ELECT 2.2uF 20%	100V
C206	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C207	1-126-157-11	ELECT 10uF 20%	16V
C208	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C209	1-126-301-11	ELECT 1uF 20%	50V
C301	1-136-158-00	FILM 0.027uF 5%	50V
C302	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C303	1-124-254-00	ELECT 0.68uF 20%	50V
C304	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C305	1-124-925-11	ELECT 2.2uF 20%	100V
C306	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C307	1-126-157-11	ELECT 10uF 20%	16V
C308	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C309	1-126-301-11	ELECT 1uF 20%	50V
C401	1-124-443-00	ELECT 100uF 20%	10V
C402	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C403	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C404	1-124-473-11	ELECT 1000uF 20%	10V
C405	1-124-443-00	ELECT 100uF 20%	10V
C407	1-124-925-11	ELECT 2.2uF 20%	100V
C408	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C409	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C410	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C411	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C412	1-126-301-11	ELECT 1uF 20%	50V
C413	1-124-443-00	ELECT 100uF 20%	10V
C414	1-124-443-00	ELECT 100uF 20%	10V
C415	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C416	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C417	1-124-907-11	ELECT 10uF 20%	50V
C419	1-124-473-11	ELECT 1000uF 20%	10V
C420	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C421	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C422	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C424	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
C425	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
C426	1-124-478-11	ELECT 100uF 20%	25V
C427	1-124-478-11	ELECT 100uF 20%	25V
C428	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C440	1-124-473-11	ELECT 1000uF 20%	10V
C4001	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C4002	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C4003	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C6500	1-124-907-11	ELECT 10uF 20%	50V

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN601	1-573-101-11	SOCKET, CONNECTOR 9P	
CN602	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN603	1-573-101-11	SOCKET, CONNECTOR 9P	
CN604	1-580-783-11	CONNECTOR, BOARD TO BOARD	
* CN605	1-580-476-11	SOCKET, CONNECTOR 15P	
CN607	1-580-783-11	CONNECTOR, BOARD TO BOARD	
* CN609	1-568-856-11	SOCKET, CONNECTOR 13P	

< DIODE >

Ref. No.	Part No.	Description	Remark
D401	8-719-210-33	DIODE EC10DS2	
D404	8-719-021-41	DIODE UZM5.6X	
D405	8-719-021-77	DIODE UZM8.2Z	
D407	8-719-801-78	DIODE 1SS184	
D410	8-719-801-78	DIODE 1SS184	
D411	8-719-801-78	DIODE 1SS184	
D412	8-719-801-78	DIODE 1SS184	
D416	8-719-801-78	DIODE 1SS184	
D4001	8-719-800-76	DIODE 1SS226	

< IC >

Ref. No.	Part No.	Description	Remark
IC201	8-759-516-43	IC CD4053BCM	
IC202	8-752-050-13	IC CXA1101M	
IC203	8-759-996-43	IC RC4558PS	
IC204	8-759-516-47	IC CD4066BCM	
IC205	8-752-055-60	IC CXA1578M	
IC401	8-759-076-36	IC M50964-256FP	
IC402	8-759-207-05	IC TA7272P	
IC403	8-759-996-43	IC RC4558PS	
IC404	8-759-925-85	IC SN74HC32ANS	
IC405	8-759-520-90	IC PST572E	
IC406	8-759-516-41	IC CD4052BCM	

TC MAIN

Ref. No.	Part No.	Description				Remark
		< COIL >				
L403	1-410-482-31	INDUCTOR	100uH			
L404	1-410-482-31	INDUCTOR	100uH			
		< TRANSISTOR >				
Q201	8-729-207-56	TRANSISTOR	RN1402			
Q202	8-729-602-21	TRANSISTOR	2SC4154-F			
Q301	8-729-207-56	TRANSISTOR	RN1402			
Q302	8-729-602-21	TRANSISTOR	2SC4154-F			
Q401	8-729-804-41	TRANSISTOR	2SB1122-S			
Q402	8-729-804-41	TRANSISTOR	2SB1122-S			
Q403	8-729-207-68	TRANSISTOR	RN2402			
Q404	8-729-207-56	TRANSISTOR	RN1402			
Q405	8-729-207-68	TRANSISTOR	RN2402			
Q407	8-729-207-68	TRANSISTOR	RN2402			
Q408	8-729-207-56	TRANSISTOR	RN1402			
Q409	8-729-207-68	TRANSISTOR	RN2402			
Q410	8-729-207-70	TRANSISTOR	RN2404			
Q411	8-729-207-56	TRANSISTOR	RN1402			
Q412	8-729-207-68	TRANSISTOR	RN2402			
Q414	8-729-207-68	TRANSISTOR	RN2402			
Q415	8-729-207-68	TRANSISTOR	RN2402			
		< RESISTOR >				
R201	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R202	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R203	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R204	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R205	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R206	1-216-025-00	METAL CHIP	100	5%	1/10W	
R207	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R208	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R209	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R210	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R211	1-216-025-00	METAL CHIP	100	5%	1/10W	
R212	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R213	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R214	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R215	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R220	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R301	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R302	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R303	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R304	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R305	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R306	1-216-025-00	METAL CHIP	100	5%	1/10W	
R307	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R308	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R309	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R310	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R311	1-216-025-00	METAL CHIP	100	5%	1/10W	
R312	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R313	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R314	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R315	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R316	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R317	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R320	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R400	1-216-037-00	METAL CHIP	330	5%	1/10W	
R401	1-216-037-00	METAL CHIP	330	5%	1/10W	
R402	1-216-037-00	METAL CHIP	330	5%	1/10W	
R403	1-216-037-00	METAL CHIP	330	5%	1/10W	
R404	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R405	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R406	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R407	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R409	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R410	1-216-045-00	METAL CHIP	680	5%	1/10W	
R411	1-216-037-00	METAL CHIP	330	5%	1/10W	
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R413	1-216-045-00	METAL CHIP	680	5%	1/10W	
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R415	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R417	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R418	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R419	1-216-084-00	METAL CHIP	30K	5%	1/10W	
R420	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R421	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R422	1-216-090-00	METAL CHIP	51K	5%	1/10W	
R423	1-216-080-00	METAL CHIP	20K	5%	1/10W	
R424	1-216-090-00	METAL CHIP	51K	5%	1/10W	
R425	1-216-025-00	METAL CHIP	100	5%	1/10W	
R426	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R427	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R428	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R429	1-216-090-00	METAL CHIP	51K	5%	1/10W	
R430	1-216-084-00	METAL CHIP	30K	5%	1/10W	
R431	1-216-080-00	METAL CHIP	20K	5%	1/10W	
R432	1-216-090-00	METAL CHIP	51K	5%	1/10W	
R433	1-216-025-00	METAL CHIP	100	5%	1/10W	
R434	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R435	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R436	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R437	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R438	1-216-073-00	METAL CHIP	10K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R440	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R441	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R444	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R445	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R446	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R447	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R448	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R449	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R450	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R451	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R452	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R453	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R454	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R455	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R456	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R457	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R458	1-216-088-00	METAL CHIP	43K	5%	1/10W	
R459	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R460	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R461	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R462	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R463	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R464	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R466	1-216-025-00	METAL CHIP	100	5%	1/10W	
R467	1-216-025-00	METAL CHIP	100	5%	1/10W	
R470	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R471	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R472	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R473	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R474	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R475	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R480	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R481	1-216-295-00	METAL CHIP	0	5%	1/10W	
R482	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R483	1-216-072-00	METAL CHIP	9.1K	5%	1/10W	
R484	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R2001	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R4000	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R4001	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4002	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4003	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4004	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4005	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4006	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4007	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
R4008	1-216-298-00	METAL CHIP	2.2	5%	1/10W	
⚠R4010	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R4421	1-216-025-00	METAL CHIP	100	5%	1/10W	

Ref. No.	Part No.	Description				Remark
		< VARIABLE RESISTOR >				
RV201	1-241-136-11	RES, ADJ, CARBON 10K				
RV301	1-241-136-11	RES, ADJ, CARBON 10K				
		< TEST PIN >				
* TP101	1-564-518-11	PLUG, CONNECTOR 3P				
* TP201	1-564-518-11	PLUG, CONNECTOR 3P				
* TP401	1-564-517-11	PLUG, CONNECTOR 2P				
		< VIBRATOR >				
X401	1-577-358-21	VIBRATOR, CERAMIC (4MHz)				

****

*	A-4356-163-A	TC SW BOARD, COMPLETE (G, IT)				
*	A-4356-209-A	TC SW BOARD, COMPLETE (EXCEPT G, IT)				
		**********************				
		< CONNECTOR >				
* CN351	1-580-476-11	SOCKET, CONNECTOR 15P				
		< DIODE >				
D351	8-719-310-24	LED SEL4525C-C (DECK A: ◁)				
D352	8-719-310-24	LED SEL4525C-C (DECK A: ▷)				
D353	8-719-312-37	LED SEL4225C-C (HIGH SPEED)				
D354	8-719-312-37	LED SEL4225C-C (NORMAL SPEED)				
D355	8-719-312-37	LED SEL4225C-C (CD SYNCHRO)				
D356	8-719-310-04	LED SEL4925A-D (DECK B: PAUSE ❚❚)				
D357	8-719-310-24	LED SEL4525C-C (DECK B: ◁)				
D358	8-719-310-24	LED SEL4525C-C (DECK B: ▷)				
D359	8-719-312-37	LED SEL4225C-C (DECK B: REC ●)				
		< RESISTOR >				
R351	1-216-029-00	METAL CHIP	150	5%	1/10W	
R352	1-216-033-00	METAL CHIP	220	5%	1/10W	
R353	1-216-037-00	METAL CHIP	330	5%	1/10W	
R354	1-216-041-00	METAL CHIP	470	5%	1/10W	
R355	1-216-045-00	METAL CHIP	680	5%	1/10W	
R356	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R357	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R358	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R359	1-216-029-00	METAL CHIP	150	5%	1/10W	
R360	1-216-033-00	METAL CHIP	220	5%	1/10W	
R361	1-216-037-00	METAL CHIP	330	5%	1/10W	
R362	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R364	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R365	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R366	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R369	1-216-295-00	METAL CHIP	0	5%	1/10W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

TC SW | TRANSFORMER

Ref. No.	Part No.	Description	Remark
R370	1-216-295-00	METAL CHIP 0 5%	1/10W
R374	1-216-073-00	METAL CHIP 10K 5%	1/10W
		< SWITCH >	
S351	1-554-303-21	SWITCH, TACTILE (DECK A: □)	
S352	1-554-303-21	SWITCH, TACTILE (DECK A: ▷)	
S353	1-554-303-21	SWITCH, TACTILE (DECK A: ◁)	
S354	1-554-303-21	SWITCH, TACTILE (DECK B: ◀◀)	
S355	1-554-303-21	SWITCH, TACTILE (DECK B: ▶▶)	
S356	1-554-303-21	SWITCH, TACTILE (DECK B: REC ●)	
S357	1-554-303-21	SWITCH, TACTILE (HIGH SPEED)	
S358	1-554-303-21	SWITCH, TACTILE (NORMAL SPEED)	
S359	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	
S360	1-554-303-21	SWITCH, TACTILE (DECK B: □)	
S361	1-554-303-21	SWITCH, TACTILE (DECK B: PHASE ▮▮)	
S362	1-554-303-21	SWITCH, TACTILE (DECK B: ▷)	
S363	1-554-303-21	SWITCH, TACTILE (DECK B: ◁)	
S364	1-554-303-21	SWITCH, TACTILE (DECK A: ◀◀)	
S365	1-554-303-21	SWITCH, TACTILE (DECK A: ▶▶)	
S371	1-570-850-21	SWITCH, SLIDE (DIRECTION)	
S372	1-692-319-11	SWITCH, SLIDE (DOLBY NR)	

****

Ref. No.	Part No.	Description	Remark
*	1-645-181-11	TRANSFORMER BOARD *****************	
		< CAPACITOR >	
C957	1-136-165-00	FILM 0.1uF 5%	50V
C958	1-136-165-00	FILM 0.1uF 5%	50V
		< CONNECTOR >	
* CN961	1-564-321-00	PIN, CONNECTOR 2P (EXCEPT E, EA, TR)	
CN961	1-568-106-11	PIN, CONNECTOR 4P (E, EA, TR)	
		< FUSE >	
⚠F953	1-532-783-21	FUSE, MICRO (SECONDARY) 125V 5A (US, Canadian)	
⚠F953	1-532-846-11	LINK, IC 5A (EXCEPT US, Canadian)	
⚠F954	1-532-783-21	FUSE, MICRO (SECONDARY) 125V 5A (US, Canadian)	
⚠F954	1-532-846-11	LINK, IC 5A (EXCEPT US, Canadian)	

****

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *************	
16	1-575-903-11	WIRE, FLAT TYPE (15 CORE)	
18	1-696-727-11	WIRE (FLAT TYPE) (15 CORE)	
19	1-575-731-11	WIRE, FLAT TYPE (7 CORE)	
20	1-690-588-31	WIRE, FLAT TYPE (9 CORE)	
56	1-541-860-41	MOTOR, DC FAN (US, Canadian)	
118	1-696-731-11	WIRE (FLAT TYPE) (15 CORE)	
119	1-696-725-11	WIRE (FLAT TYPE) (9 CORE)	
120	1-696-726-11	WIRE (FLAT TYPE) (13 CORE)	
167	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
⚠F901	1-532-078-00	FUSE T1A (AEP, UK, G, IT, AUS)	
⚠F901	1-532-744-11	FUSE, GLASS TUBE 125V/2.5A (US, Canadian)	
⚠F902	1-532-203-00	FUSE T2A (E, EA, TR)	
⚠F903	1-532-078-00	FUSE T1A (E, EA, TR)	
HP101	A-2003-868-F	BASE ASSY, HEAD (DECK A)	
HRPE101	A-2003-838-F	BASE ASSY, HEAD (DECK B)	
M101A	X-3363-501-1	MOTOR ASSY, REEL (DECK A)	
M101B	X-3363-501-1	MOTOR ASSY, REEL (DECK B)	
M102A	X-3359-417-1	MOTOR ASSY, CAPSTAN (DECK A)	
M102B	X-3359-417-1	MOTOR ASSY, CAPSTAN (DECK B)	
⚠T901	1-697-002-11	TRANSFORMER, POWER (E, EA, TR)	
⚠T901	1-697-003-11	TRANSFORMER, POWER (UK, AUS)	
⚠T901	1-697-004-11	TRANSFORMER, POWER (AEP, G, IT)	
⚠T901	1-697-005-11	TRANSFORMER, POWER (US, Canadian)	

****

HARDWARE LIST

#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#2	7-682-547-04	SCREW +BVTT 3X6 (S)
#3	7-682-548-04	SCREW +BVTT 3X8 (S)
#4	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3
#5	7-685-645-79	SCREW +BTP 3X6 TYPE2 N-S
#6	7-621-255-15	SCREW +PTT 2X3 (S)
#7	7-627-556-08	SCREW +P 2.6X2.8
#8	7-621-775-00	SCREW +B 2.6X3
#9	7-621-770-67	SCREW +PTT 2.6X6 (S)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

English
92H04100-1

Sony Corporation
Audio Group

9-957-398-11

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SONY

3-755-706-21(4)

Mini Hi-Fi Component System

Operating Instructions
Mode d'emploi

MHC-2750

WARNING

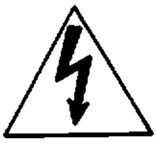
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

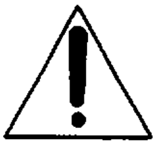
CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in Canada

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For the customers in the U.S.A.

Owner's Record

The model and serial numbers are located at the rear of the unit. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. ST-H2750 Serial No. ____________

Model No. DXA-H2750 Serial No. ____________

Model No. CDP-H3750 Serial No. ____________

Model No. SS-H2750 Serial No. ____________

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

CAUTION

The use of optical instruments with this product will increase eye hazard.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

Pour les utilisateurs au Canada

ATTENTION:

POUR PREVENIR LES CHOCS ELECTRIQUES, NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

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How to Use This Manual

How this manual is composed

Please read the instructions in this manual referring to the illustrations.

- The letters in the illustrations correspond to the letters in the text.
  ex Speaker Cord Connection A
- The step numbers in the illustrations correspond to the step numbers in the text.
- Use the page numbers in "Parts Identification" at the end of this manual as an index to find out how to use the buttons and controls
- Subsidiary information is located at the bottom of the pages.

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Comment utiliser ce manuel

Composition du manuel

Prière de lire les explications de ce manuel en consultant les illustrations.

- Les lettres figurant sur les illustrations correspondent à celles du texte explicatif.
  Ex. Connexion des cordons des enceintes A
- Le numéro des étapes figurant sur les illustrations correspondent à ceux du texte explicatif.
- Se référer aux numéros des pages, présentés dans la section "Nomenclature" à la fin du manuel, pour trouver rapidement les explications sur les touches et les commandes.
- On trouvera des explications complémentaires dans le bas des pages.

Overview

Tuner section

- You can store up to 30 stations; 20 stations for FM, and 10 stations for AM.

Amplifier section

- The Sound Field Coordinator System allows you to enjoy various sound effects with simple operation.
  - — You can easily adjust the music to your taste by selecting from 6 factory-preset settings of graphic equalizer, AI BC, and surround effect.
  - — AI BC (AI Bass Control) system reinforces bass sound.
  - — The surround system adds surround effect to stereo sound.
  - — You can adjust the overall effect of the factory-preset settings and store your own settings (up to 4 settings).
- You can select directly the desired program source just by pressing the operation button (BAND or −/+ to select the tuner, ▷ or DISC 1 — 5 to select the CD player, and ▷ or ◁ to select the cassette deck) on the program source equipment.
  (Automatic Source Selection)

CD player section

- The CD changer allows you to play up to 5 discs in a row.
- You can enjoy listening in various playing modes.
- The Custom File function allows you to make your disc custom-made by:
  - — assigning a name to the disc (Disc Memo)
  - — memorizing the sound adjustment on the disc (Sound Field File).

Cassette deck section

- Auto-reverse decks enable repeated playback of both sides of the cassette.
- CD synchro function enables easy recording of a CD
- Double decks enable tape dubbing and continuous playback

Présentation du produit

Section tuner

- Il est possible de mémoriser un maximum de 30 stations, 20 stations pour la gamme FM, et 10 stations pour la gamme AM.

Section amplificateur

- Le système coordinateur de champ sonore permet d'obtenir des effets sonores variés en une seule opération.
  - — Il est facile de régler la musique selon ses préférences en sélectionnant l'un des 6 réglages d'égaliseur graphique du système AI BC et de l'effet ambiant réglés en usine.
  - — Le système AI BC (commande de grave AI) renforce les basses fréquences.
  - — Le système ambiant ajoute un effet ambiant au son stéréo.
  - — L'effet d'ensemble des réglages en usine est réglable par l'utilisateur et ses propres réglages sont enregistrés (4 réglages maximum).
- Il est possible de sélectionner directement la source de programme souhaitée par simple pression d'une touche de fonction (BAND ou −/+ pour sélectionner le tuner, ▷ ou DISC 1 — 5 pour sélectionner le lecteur CD, et ▷ ou ◁ pour sélectionner la platine-cassette) sur le composant de la source de programme.
  (Sélection automatique de la source)

Section lecteur CD

- Le changeur de disques compacts permet de lire un maximum de 5 disques à la suite.
- Il est possible de profiter de l'écoute dans divers modes de lecture.
- La fonction de fichier personnalisé permet de créer un disque personnalisé en:
  - — donnant un nom au disque (Mémoire de disque)
  - — mémorisant les réglages sonores du disque (Fichier de champ sonore).

Section platine-cassette

- Les platines à auto-inversion autorisent une lecture répétée des deux faces d'une cassette.
- La fonction de CD synchro permet son enregistrement sur une cassette
- Les deux platines rendent possible la copie de cassette et la lecture en continu.

Precautions

On operating voltage

- Operate the unit only on 120 V AC, 60 Hz.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the system from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Be sure to turn off the power when you unplug the AC power cord.
- Should any solid object or liquid fall into the component, unplug the system and have it checked by qualified personnel before operating it any further.
- AC power cord must be changed only at a qualified service shop.
- Do not move the unit while a disc is in any of the disc trays, otherwise the discs may fall out of the trays and you will be unable to remove them.
- Do not insert more than one disc on one tray.
- Do not install the unit in a place where there is excessive dust or smoke.
- This unit uses several micro-computer chips to control a series of operations. Sometimes, an operation may not work properly due to the condition of the power being supplied In this case, turn the power off, then turn it back on and retry the operation

For the customers in the U.S.A.

- As the laser beam used in this unit is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.
- For detailed safety precautions, see the "IMPORTANT SAFEGUARDS" leaflet

On lock screws

The lock screws on the bottom exterior of the CD player protects the unit against shock during transportation. Before operating the CD player, remove the three lock screws by following the instructions on the label, and store them in a safe place When transporting the unit, replace the lock screws in its original holes and lock them.

To re-install the screws

1. Press OPEN/CLOSE ⏏ for DISC 1. The disc tray opens.
2. Press SYSTEM POWER to turn off the power. The disc tray closes.
3. Disconnect the AC power cord.
4. Re-install the lock screws.

If you have any question or problem concerning your stereo system, please consult your nearest Sony dealer.

Précautions

Tension de fonctionnement

- Faire fonctionner l'appareil uniquement sur un courant CA de 120 V, 60 Hz.

Sécurité

- L'appareil n'est pas coupé de la source secteur tant qu'il reste raccordé à une prise secteur, même si son alimentation a été coupée.
- Débrancher la chaîne au niveau de la prise secteur si l'on prévoit de ne pas l'utiliser pendant longtemps. Pour débrancher le cordon, saisir la fiche. Ne jamais tirer sur le cordon proprement dit.
- Bien éteindre l'appareil avant de débrancher le cordon d'alimentation.
- Si un liquide ou un solide venait à s'infiltrer dans l'appareil, le débrancher et le faire vérifier par un personnel qualifié avant de le remettre en service.
- Le cordon d'alimentation doit être changé uniquement par un service après-vente qualifié.
- Ne pas déplacer l'appareil lorsqu'il y a des disques dans les tiroirs de disque, car les disques risqueraient de sortir des tiroirs et il ne serait plus possible de les enlever.
- Ne pas mettre plus d'un disque dans le même tiroir.
- Ne pas installer l'appareil dans un endroit renfermant de la poussière ou des fumées excessives
- L'appareil fait appel à plusieurs puces de microprocesseur pour commander une série donnée d'opérations. Quelquefois, une opération risque de ne pas se dérouler correctement en raison de l'état d'alimentation de l'appareil. Dans ce cas, couper l'alimentation, puis l'enclencher à nouveau et recommencer l'opération.

A propos des vis de blocage

Les vis de blocage sur le fond extérieur du lecteur CD protègent l'appareil contre les chocs pendant la durée du transport. Avant de mettre le lecteur CD en service, retirer les trois vis de blocage en procédant comme indiqué sur l'étiquette, et ranger les vis en lieu sûr.
Lorsqu'on doit transporter l'appareil, remettre les vis de blocage dans leurs orifices originaux et les serrer à fond.

Pour reposer les vis

1. Appuyer sur OPEN/CLOSE ⏏ de DISC 1 Le tiroir du disque s'ouvre.
2. Appuyer sur SYSTEM POWER pour couper l'alimentation. Le tiroir du disque se referme.
3. Débrancher le cordon d'alimentation.
4. Remettre les vis en place.

Pour toute question ou difficulté au sujet de cette chaîne stéréo, prière de consulter le concessionnaire Sony le plus proche.

Preparations

Installation

Place the stereo system in a location with adequate ventilation to prevent internal heat build-up in the system

On moisture condensation in the CD player section

If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the unit. Should this occur, the CD player will not operate. In this case, remove the disc and leave the system turned on for about an hour until the moisture evaporates.

Battery Installation A

Install two size AA (R6) batteries in the supplied remote commander for remote control operation.

Battery life

About half a year of normal operation can be expected when using the Sony SUM-3 (NS) batteries. When the batteries are exhausted, the commander cannot operate the stereo system. When this happens, replace all the batteries with new ones.

To avoid battery leakage

If the commander is not to be used for a long time, remove the batteries to avoid damage caused by battery leakage and corrosion

Préparatifs

Installation

Pour éviter un échauffement interne, placer la chaîne stéréo dans un endroit suffisamment ventilé.

Condensation dans la section lecteur CD

Si le lecteur est transporté directement d'un endroit froid à une pièce chaude ou s'il est placé dans un endroit très humide, de la condensation risque de se produire dans l'appareil. En pareil cas, l'appareil ne fonctionnera pas. Il convient alors de retirer le disque et de laisser le lecteur sous tension pendant une heure environ pour laisser s'évaporer l'humidité

Mise en place des piles A

Mettre deux piles format AA en place (R6) dans la télécommande fournie en vue d'une exploitation à distance.

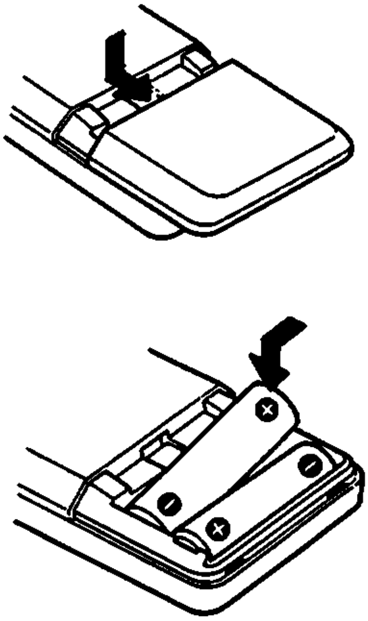
Autonomie des piles

Un jeu de piles Sony SUM-3 (NS) durera environ 6 mois à raison d'une exploitation normale. Quand les piles sont épuisées, on ne peut plus utiliser la télécommande pour faire fonctionner la chaîne stéréo. Dans ce cas, remplacer toutes les piles par des neuves

Protection de la télécommande

Si l'on prévoit de ne pas utiliser la télécommande pendant longtemps, retirer les piles pour éviter les dégâts que causerait un suintement corrosif de leur électrolyte.

A



Connections

Notes on connection

- Connect the AC power cord last.
- Cord plugs and jacks are color coded. Red plugs and jacks are for the right channel (R) and white ones for the left channel (L).

Speaker Cord Connection A

1 Strip 15 mm (5/8 inch) of the speaker cord coating from the end of the cord.

2 Connect the right speaker to R, with the red cord to + and the black cord to –. Connect the left speaker to L, with the red cord to + and the black cord to –.

Flat Cord Connection B

Connect the system with the supplied flat cords.

B-1
To connect, depress the middle of the connector until it clicks into the male connector.

B-2
To disconnect, pull the connector out. Never pull the cord itself.

Connexions

Remarques sur les connexions

- Brancher le cordon d'alimentation en dernier lieu.
- Les fiches et prises des cordons sont identifiables par leur couleur. Les fiches et prises rouges sont destinées au canal droit (R), les blanches au canal gauche (L).

Connexion des cordons des enceintes A

1 Dénuder le cordon des enceintes sur 15 mm (5/8 pouce) à son extrémité.

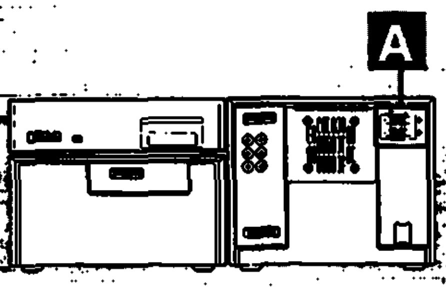
2 Raccorder le haut-parleur droit sur R, le cordon rouge étant relié sur + et le cordon noir sur –.
Raccorder le haut-parleur gauche sur L, le cordon rouge étant relié sur + et le cordon noir sur –.

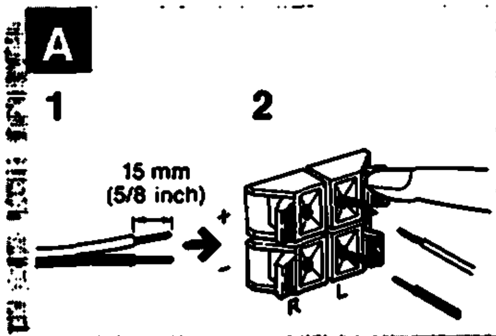
Connexion du cordon plat B

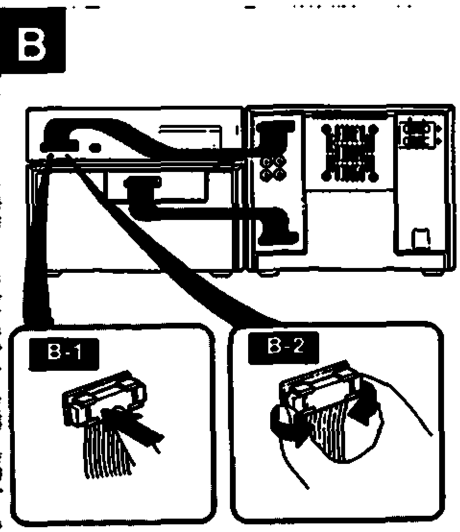
Raccorder la chaîne à l'aide du cordon plat fourni.

B-1
Pour le raccorder, appuyer au centre du connecteur jusqu'à ce qu'il rentre avec un déclic dans le connecteur mâle.

B-2
Pour le débrancher, sortir le connecteur. Ne jamais tirer sur le cordon proprement dit.







Connections

AM Antenna Connection A

Connect the supplied loop antenna to the AM and ⏚ terminals.

FM Wire Antenna Connection B

Connect the supplied FM wire antenna to the FM 75Ω terminal and extend horizontally.

For Better FM Reception C

Connect the outdoor FM antenna to the FM 75Ω and ⏚ terminals, using 75-ohm coaxial cable.

For Better AM Reception D

Use the 6- to 15-meter (20- to 50-feet) insulated wire for connecting the AM terminal. Connect the ⏚ terminal to a good ground.

Important

When you use an external antenna, be sure to ground it against lightning. Never connect the ground wire to a gas pipe. Doing so is extremely dangerous.

Connexions

Connexion de l'antenne AM A

Raccorder l'antenne cadre AM fournie sur les bornes AM et ⏚.

Connexion de l'antenne à fil FM B

Raccorder l'antenne à fil FM fournie à la borne FM 75Ω et la déployer à l'horizontale.

Pour améliorer la réception FM C

Raccorder l'antenne FM extérieure sur les bornes FM 75Ω et ⏚ à l'aide d'un câble coaxial de 75 ohms.

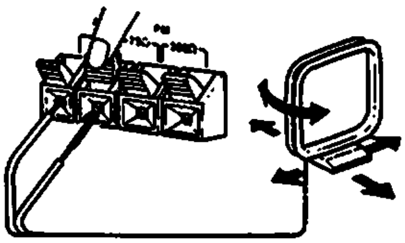
Pour améliorer la réception AM D

Utiliser un fil isolé de 6 à 15 mètres (20 à 50 pieds) pour raccorder la borne AM. Raccorder la borne ⏚ à une bonne terre.

Important

Par protection contre la foudre, bien veiller à raccorder l'antenne extérieure à la terre. Ne jamais raccorder le fil de terre à une conduite de gaz car ce serait extrêmement dangereux.

A



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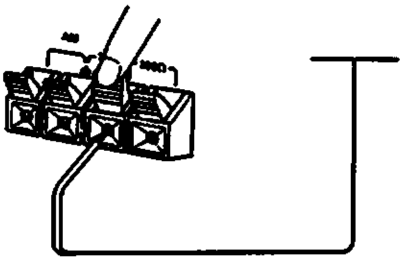

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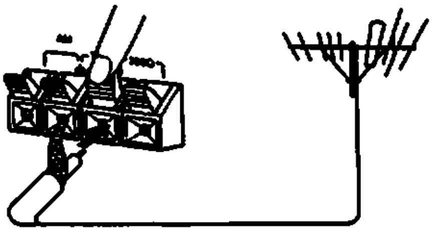

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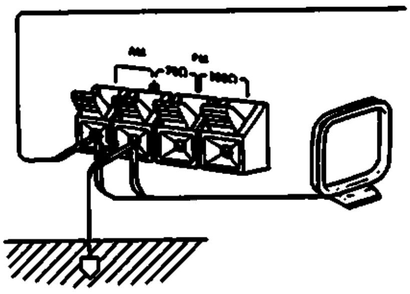


Connections

Power Connection A

Connect the supplied AC power cord to AC IN and the other end to a wall outlet.

Adding Other Components to your System

VCR B

You can connect a VCR, etc. (a) to the VIDEO IN jacks. To listen to the connected equipment, press the FUNCTION button on the front panel until the VIDEO indicator lights up.

DAT B

You can connect a DAT system b (Sony DTC-P7, etc, not supplied) to the DAT jacks. To listen to the connected equipment, press the FUNCTION button on the front panel until the DAT indicator lights up.

AU BUS C

You can connect other Sony equipment with AU BUS to the AU BUS jack.

Connexions

Connexion d'alimentation A

Brancher le cordon d'alimentation fourni sur le connecteur AC IN (entrée CA) et l'autre extrémité sur une prise secteur.

Pour ajouter d'autres maillons à la chaîne

Magnétoscope B

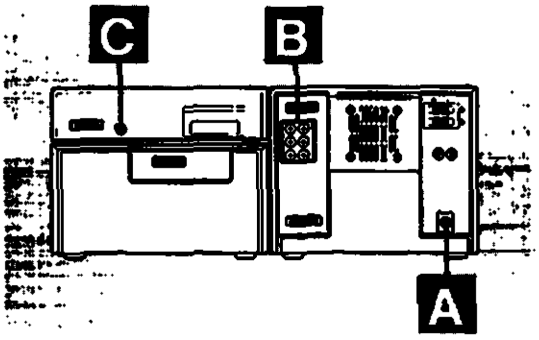
On pourra raccorder un magnétoscope et d'autres appareils similaires (a) sur les prises VIDEO IN. Pour faire fonctionner l'appareil raccordé, appuyer sur la touche FUNCTION du panneau avant jusqu'à ce que le témoin VIDEO s'allume.

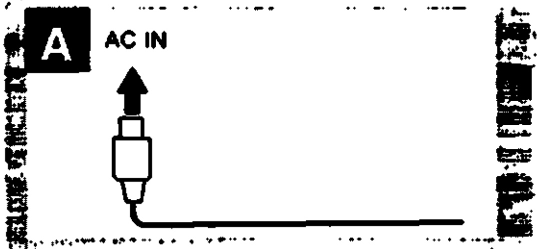
Platine DAT B

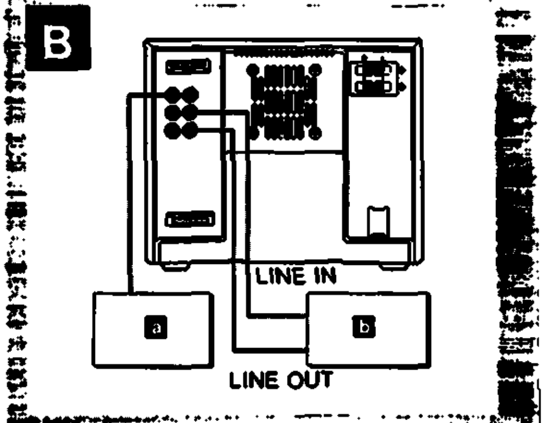
On pourra raccorder une platine DAT b (Sony DTC-P7, etc; non fournie) sur les prises DAT. Pour faire fonctionner l'appareil raccordé, appuyer sur la touche FUNCTION du panneau avant jusqu'à ce que le témoin DAT s'allume.

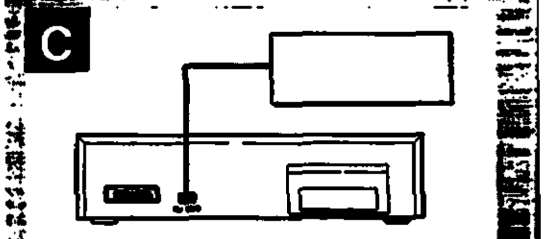
BUS AU C

On pourra raccorder un autre appareil Sony avec BUS AU à la prise AU BUS.









Clock Setting

Setting the Clock

Example: Set to AM 9:25 in the morning.

1. **Press WAKE UP TIMER 1 and 2 at the same time.**
2. **Set the hour with the – or + button.**
3. **Press MEMORY/NEXT.**
4. **Set the minute with the – or + button.**
5. **Press MEMORY/NEXT.**
   The clock starts operating.

When a power interruption occurs
The clock and timer settings are all erased, and "AM 12:00" will flash on the display.

To change the frequency display to the time display
Press CLOCK DISPLAY on the remote commander. Press it again to change to the frequency display

Réglage de l'horloge

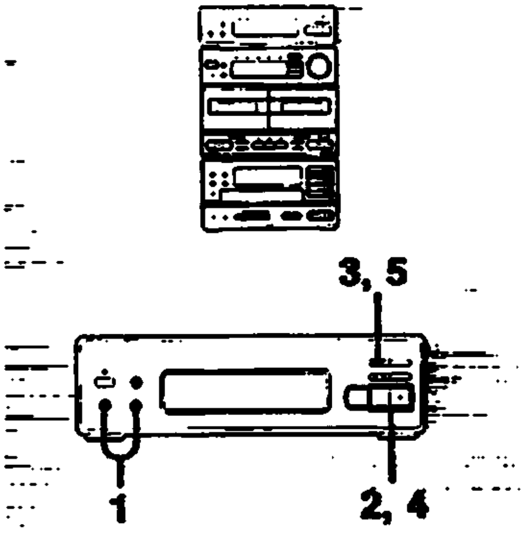
Réglage de l'heure

Exemple: Pour régler à 9:25 du matin.

1. **Appuyer sur WAKE UP TIMER 1 et 2 simultanément.**
2. **Régler l'heure à l'aide des touches – ou +.**
3. **Appuyer sur MEMORY/NEXT.**
4. **Régler les minutes à l'aide des touches – ou +.**
5. **Appuyer sur MEMORY/NEXT.**
   L'horloge commence à fonctionner.

En cas de panne de courant
Les réglages de l'horloge et de la minuterie sont effacés et "AM 12:00" clignote sur l'afficheur.

Commutation de l'affichage de fréquence à l'affichage de l'heure
Appuyer sur CLOCK DISPLAY sur la télécommande. Appuyer de nouveau pour modifier l'affichage de fréquence.



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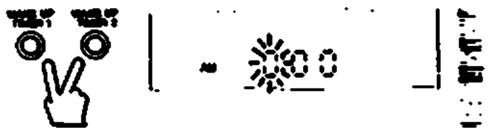

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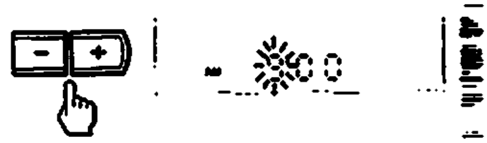

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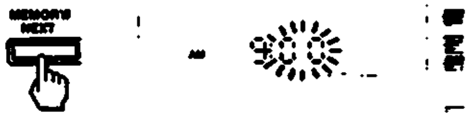

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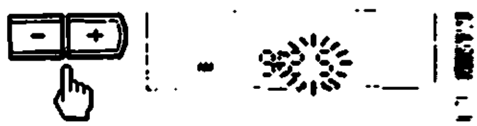


5

MEMORY/NEXT

Turning on the Power

Press SYSTEM POWER. **A**

About the demonstration display

The CD player has a demonstration display mode. There are two ways to start the demonstration display:
— by starting the demonstration automatically ("Automatic Demonstration Mode")
— by starting the demonstration manually.

When you turn on the power for the first time, the unit enters the "Automatic Demonstration Mode" automatically.

Note
During the demonstration, all the disc tray indicators light up

To start the demonstration automatically
The unit automatically enters the Automatic Demonstration Mode when all the disc trays are empty. During this mode, the demonstration starts automatically when you do not press any key for more than one minute.

- To stop the demonstration, press any key. The demonstration stops, but if you leave the unit untouched for more than one minute, the demonstration starts again.
- To cancel the Automatic Demonstration Mode, press CHARACTER ◁ and ▷ at the same time during the demonstration. The demonstration does not start even if you leave the unit untouched for more than one minute.
  The unit enters the Automatic Demonstration Mode again when:
  — you turn off the power once and turn on the power again, or
  — you press CHARACTER ◁ and ▷ at the same time again.

Note
The Automatic Demonstration Mode does not function while checking the Disc Memos using the TIME/MEMO button (page 35).

To start the demonstration manually
Press CHARACTER ◁ and ▷ at the same time while the CD player is in the stop mode.

- To stop the demonstration, press any key.

Mise sous tension

Appuyer sur SYSTEM POWER **A**

A propos de l'affichage de démonstration

Le lecteur CD possède un mode d'affichage de démonstration. Il y a deux manières de déclencher l'affichage de démonstration:
— méthode automatique ("Mode de démonstration automatique")
— méthode manuelle.

Quand on met l'appareil sous tension pour la première fois, l'appareil passe automatiquement en "Mode de démonstration automatique".

Remarque
Pendant la démonstration, tous les témoins des tiroirs de disque s'allument.

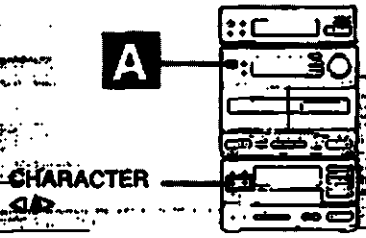
Pour déclencher la démonstration automatiquement
L'appareil passe automatiquement en mode de démonstration automatique quand tous les tiroirs de disque sont vides. Dans ce mode, la démonstration commence automatiquement si l'on reste plus d'une minute sans appuyer sur une touche

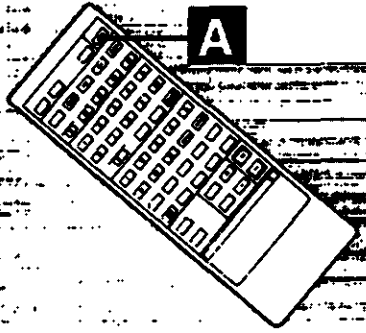
- Pour arrêter la démonstration, appuyer sur une touche quelconque.
  La démonstration s'arrête, mais si l'on ne sollicite pas l'appareil pendant plus d'une minute, la démonstration recommence
- Pour annuler le mode de démonstration automatique, appuyer simultanément sur CHARACTER ◁ et ▷ pendant la démonstration.
  La démonstration ne se déclenchera pas, même si l'on reste plus d'une minute sans solliciter l'appareil.
  L'appareil repasse automatiquement en mode de démonstration automatique quand:
  — on éteint l'appareil et qu'on le remet sous tension, ou
  — on appuie à nouveau simultanément sur CHARACTER ◁ et ▷.

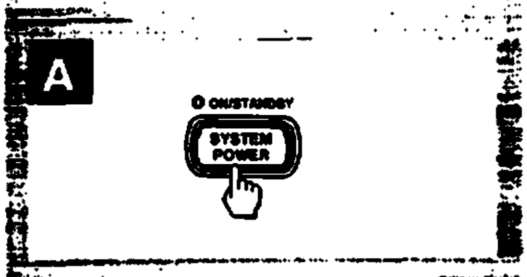
Remarque
Le mode de démonstration automatique ne fonctionne pas pendant la vérification des mémoires de disque à l'aide de la touche TIME/MEMO (page 35)

Pour déclencher la démonstration manuellement
Appuyer simultanément sur CHARACTER ◁ et ▷ lorsque le lecteur CD est en mode d'arrêt.

- Pour arrêter la démonstration manuellement, appuyer sur une touche quelconque







Audio Adjustment

Volume Adjustment **A**

Turn VOLUME clockwise to increase the sound level, or counterclockwise to decrease it (or press VOL + or – on the *remote commander*).

For personal listening **B**

Connect headphones to HEADPHONES.
No sound comes from the speakers.

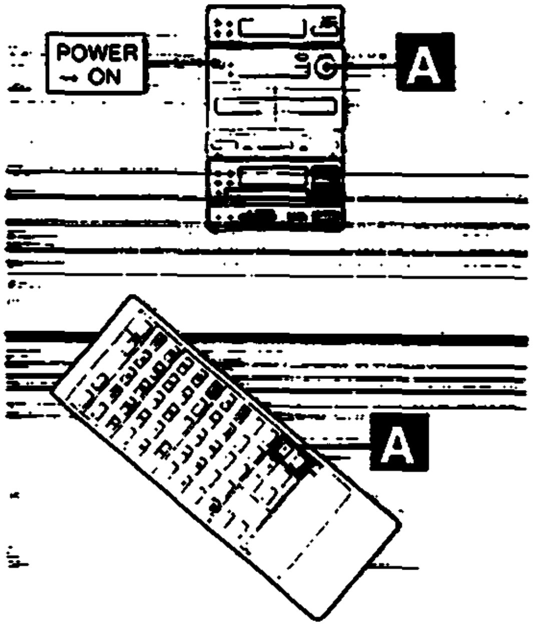
Réglage du son

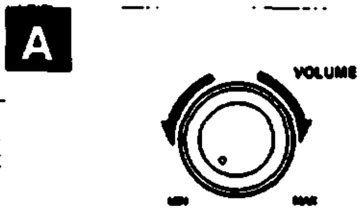
Réglage du volume **A**

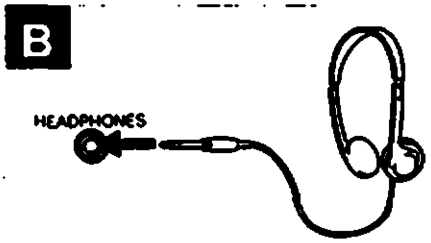
Tourner le réglage VOLUME dans le sens des aiguilles d'une montre pour augmenter le niveau sonore ou dans le sens contraire *pour l'atténuer (ou bien appuyer sur VOL + ou – sur la télécommande).*

Pour une écoute en privé **B**

Brancher un casque d'écoute sur la prise HEADPHONES.
Le son des haut-parleurs est coupé.







CD Playing
— Basic Operations

Inserting the Discs

Before you start, press FUNCTION on the amplifier so that the CD indicator lights up.

1. **Press OPEN/CLOSE ⏏ of the desired disc tray.**
   The indicator for the tray (DISC 1 — 5) lights up.
2. **Place a disc with the printed side up.**
3. **Press OPEN/CLOSE ⏏ again.**
   Disc Memo (see page 36) or the disc number appears in the display and then shows the following for 4 seconds:
   a the disc number
   b total number of selections in the disc
   c total playing time of the disc

To take out the disc
Press OPEN/CLOSE ⏏ of the desired disc tray.

To insert discs sequentially
Press DISC SKIP on the remote commander after step 2. The next tray opens each time you press DISC SKIP so that you can place other discs

About the disc tray indicators

An indicator is provided for each disc tray (DISC 1 — 5).
- The green indicator shows that the tray is selected (either during play or standby, or when the tray is open) no matter if there is a disc or not.
- The amber indicator shows that there is a disc in the tray but the tray is not selected.
- When there is no disc in the tray and the tray is not selected, the indicator turns off.

To check the discs in the trays (Disc Check)

The Disc Check function allows you to check the discs in all the trays automatically.
Press OPEN/CLOSE ⏏ of any tray for more than 2 seconds.
The five disc trays automatically come out and go back in sequentially (only once for each tray).

To play an 8 cm (3-inch) CD
Place it on the inner circle of the tray. If the disc is provided with an adaptor, first remove it. Do not put a normal CD (12 cm/5-inch) on top of an 8 cm CD.

Lecture d'un disque compact
— Exploitation de base

Mise en place des disques

Avant de procéder, appuyer sur FUNCTION de l'amplificateur de façon que le témoin CD s'allume.

1. **Appuyer sur OPEN/CLOSE ⏏ pour ouvrir le tiroir voulu.**
   Le témoin du tiroir (DISC 1 — 5) s'allume.
2. **Mettre un disque en place face imprimée vers le haut.**
3. **Appuyer à nouveau sur OPEN/CLOSE ⏏.**
   L'affichage indique la mémoire de disque (voir page 36) ou le numéro du disque, puis il affiche les données suivantes pendant 4 secondes:
   a le numéro du disque
   b le nombre total de plages du disque
   c le temps de lecture total du disque

Pour sortir le disque
Appuyer sur OPEN/CLOSE ⏏ du tiroir de disque voulu

Pour mettre les disques en place l'un après l'autre
Appuyer sur DISC SKIP de la télécommande après l'opération 2. Le tiroir suivant s'ouvre chaque fois qu'on appuie sur DISC SKIP de façon à pouvoir mettre d'autres disques en place.

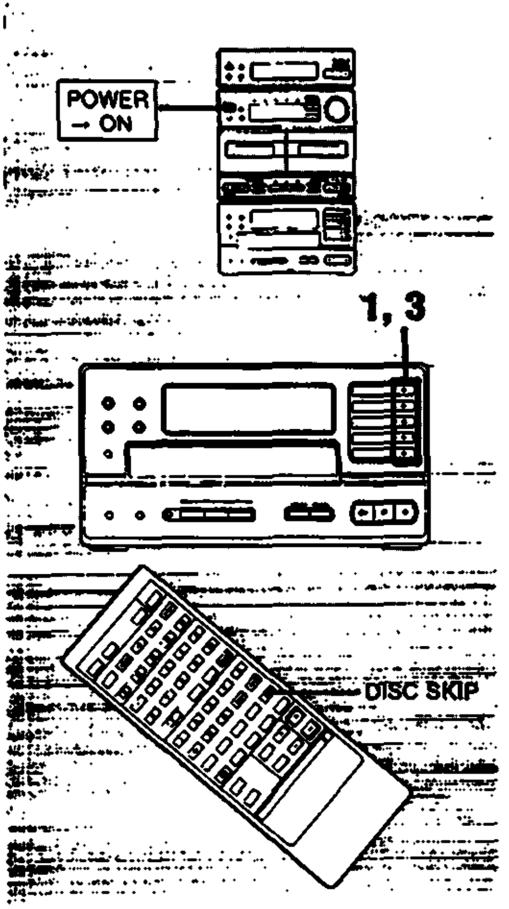
A propos des témoins de tiroir de disque

Il y a un témoin pour chaque tiroir de disque (DISC 1 — 5).
- Le témoin vert signifie que le tiroir est sélectionné (soit pendant la lecture ou l'attente, soit quand le tiroir est ouvert), qu'il y ait un disque en place ou non.
- Le témoin ambre signifie qu'il y a un disque dans le tiroir mais que le tiroir n'est pas sélectionné.
- S'il n'y a pas de disque dans le tiroir et que le tiroir n'est pas sélectionné, le témoin s'éteint.

Pour vérifier les disques en place dans les tiroirs (Vérification des disques)

La fonction de vérification des disques permet de vérifier automatiquement les disques de tous les tiroirs.
Appuyer sur OPEN/CLOSE ⏏ d'un tiroir quelconque pendant plus de 2 secondes.
Les cinq tiroirs de disque sortent automatiquement l'un après l'autre (une fois seulement pour chaque tiroir).

Pour lire un CD de 8 cm (3 pouces)
Placer le CD sur le cercle intérieur du tiroir. Si le disque est muni d'un adaptateur, retirer tout d'abord ce dernier. Ne jamais placer un CD normal (12 cm/5 pouces) au-dessus d'un CD de 8 cm.



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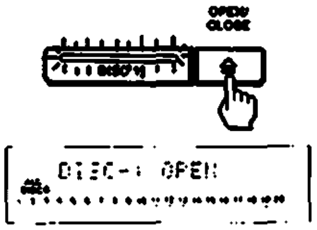

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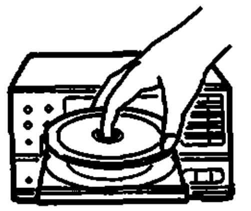

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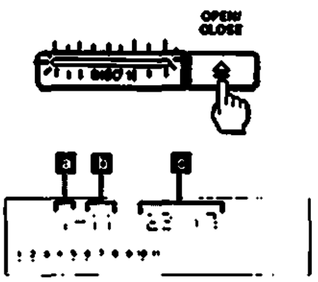


CD Playing — Basic Operations

Playing the Entire Disc — Continuous Play

1 **Insert the disc(s) in the disc tray(s). (See page 13.)**

2 **Press CONTINUE to choose whether to play one disc (1 DISC) or all discs (ALL DISCS).**

3 **Press ▷ or DISC 1 — 5.**
Play starts from the beginning of the selected disc (which the disc tray indicator is green).

The display shows:

- a the disc number
- b the current track number
- c elapsed playing time of the track
- d a Music Calendar — track numbers to be played (track numbers 1 to 20 only)
- e track indicators — all the track numbers in the disc (track numbers 1 to 20 only)

Caution on adjusting volume
Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level portion is played.

To stop play
To stop for a moment during play, press II
(Press II or ▷ to resume play.)
To stop play, press ■.
To stop play and open the tray, press OPEN/CLOSE ⏏.

Lecture d'un disque compact — Exploitation de base

Lecture du disque en entier — Lecture continue

1 **Mettre le(s) disque(s) en place dans le(s) tiroir(s). (Voir page 13.)**

2 **Appuyer sur CONTINUE pour choisir la lecture d'un seul disque (1 DISC) ou de tous les disques (ALL DISCS).**

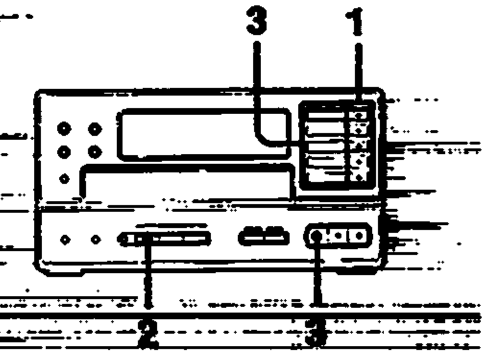
3 **Appuyer sur ▷ ou DISC 1 — 5.**
La lecture commence depuis le début du disque sélectionné (dont le témoin du tiroir est allumé en vert).

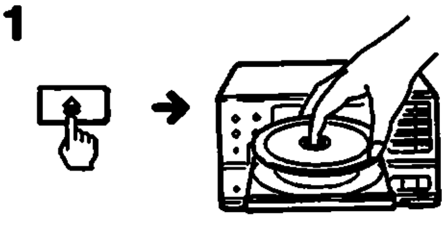
L'affichage indique:

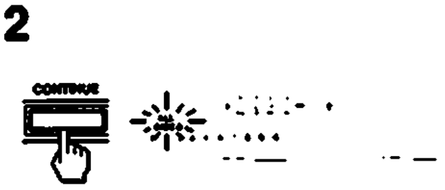
- a le numéro du disque
- b le numéro de la plage en cours
- c le temps de lecture écoulé de la plage
- d un calendrier musical — les numéros des plages à lire (numéros de plage 1 à 20 seulement)
- e les témoins de plage — tous les numéros de plage du disque (numéros de plage 1 à 20 seulement)

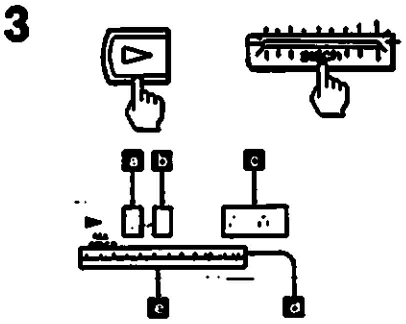
Précaution lors du réglage du volume
Ne pas élever excessivement le volume pendant l'écoute d'un passage où les signaux audio sont très faibles ou absents car les haut-parleurs risqueraient d'être endommagés par l'apparition d'un passage à niveau de crête.

Pour arrêter la lecture
Pour arrêter temporairement le disque pendant la lecture, appuyer sur II.
(Pour reprendre la lecture, appuyer sur II ou sur ▷.)
Pour arrêter la lecture, appuyer sur ■.
Pour arrêter la lecture et ouvrir le tiroir, appuyer sur OPEN/CLOSE ⏏









Notes

- Disc Memo (see page 36) appears in the display during the stop mode. If the Disc Memo is not stored, the disc number, such as "• DISC-1 •", is displayed
- "NO DISC" is displayed when the disc tray is empty.

Remarques

- La mémoire de disque (voir page 36) apparaît sur l'affichage en mode d'arrêt. Si la mémoire de disque n'a pas été sauvegardée, le numéro du disque, par exemple "• DISC-1 •", s'affiche.
- "NO DISC" s'affiche si le tiroir du disque est vide.

CD Playing — Basic Operations

Information Display

During play A

Press TIME/MEMO (TIME on the remote commander) during play.

Each time you press it, the display changes to give you the following information:

- **a** Elapsed playing time of the current selection
- **b** Remaining time in the selection (If the current track number is over 20, "–.––" is displayed.)
- **c** Remaining time of the disc (displayed only in the Continuous Play mode)
- **d** Disc Memo or disc number

During stop B

Press TIME/MEMO (TIME on the remote commander) during stop.

The display changes to give you the following information for a few seconds and then returns to the initial display:

- **a** Disc number, total number of selections in the disc, and total playing time of the disc

Notes on handling discs C

- To keep the disc clean, handle the disc by its edge. Do not touch the surface. **a**
- Do not stick paper or tape onto the disc. **b**
- Do not expose the disc to direct sunlight or heat sources such as a hot air duct, nor leave it in a car parked in direct sunlight as there can be a considerable rise in the temperature.
- After playing, store the disc in its case

Lecture d'un disque compact — Exploitation de base

Affichage des informations

Pendant la lecture A

Appuyer sur TIME/MEMO (TIME sur la télécommande) pendant la lecture.

Chaque fois qu'on appuie sur la touche, l'affichage change pour donner les informations suivantes:

- **a** Temps de lecture écoulé de la plage en cours
- **b** Temps restant de la plage (Si le numéro de la plage en cours est supérieur à 20, "–.––" s'affiche)
- **c** Temps restant du disque (affiché uniquement en mode de lecture continue)
- **d** Mémoire du disque ou numéro du disque

Pendant l'arrêt B

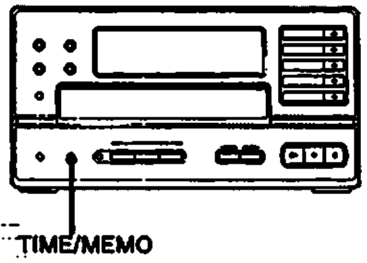
Appuyer sur TIME/MEMO (TIME sur la télécommande) pendant l'arrêt.

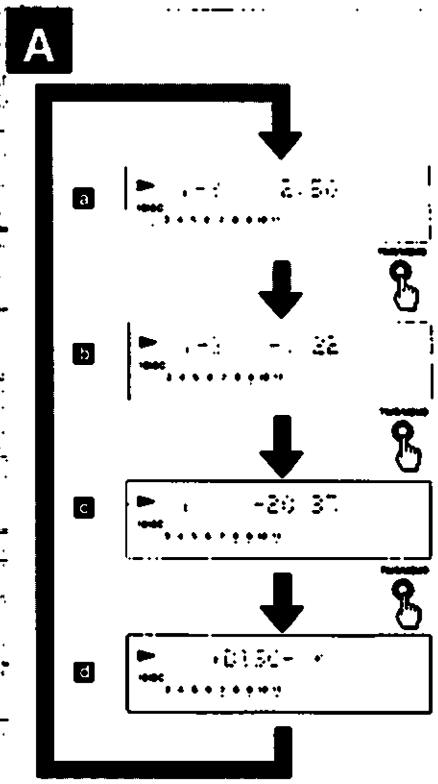
L'affichage change pour donner les informations suivantes pendant quelques secondes, puis il revient à l'affichage initial:

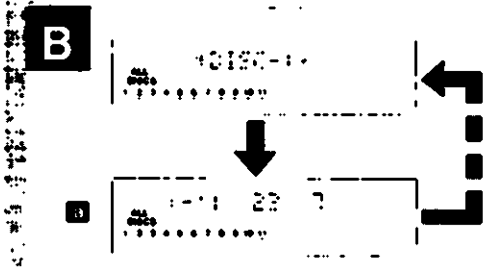
- **a** Numéro du disque, nombre total de plages du disque, et temps de lecture total du disque

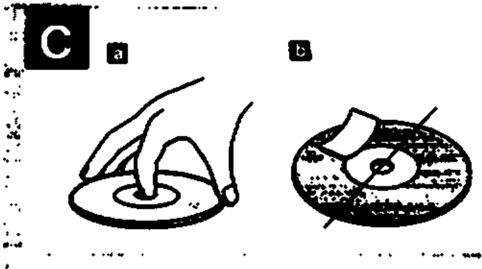
Remarques sur la manipulation des disques C

- Pour maintenir les disques propres, les tenir par leur arête et ne pas toucher leur surface. **a**
- Ne pas coller de papier ni de ruban adhésif sur le disque. **b**
- Ne pas laisser les disques en plein soleil ni près d'une source de chaleur comme une bouche d'air chaud par exemple, ni dans un véhicule stationné en plein soleil car la température risque de s'élever considérablement.
- Après la lecture, remettre le disque dans son étui.









CD Playing — Basic Operations

Selecting a Desired Disc

You can locate the beginning of any disc during play or pause, or when the player is stopped.

To locate the beginning of a particular disc and start playing A

Press the corresponding DISC 1 — 5 button.
During Continuous Play mode, disc play starts.

To change to the next disc B

(Possible only with the remote commander)

Press DISC SKIP
During play, the player selects the next disc and starts playing
During stop or pause, the players selects the next disc and enters stop or pause mode.

Lecture d'un disque compact — Exploitation de base

Pour sélectionner un disque

Il est possible de repérer le début de n'importe quel disque pendant la lecture ou la pause, ou bien lorsque le lecteur est à l'arrêt.

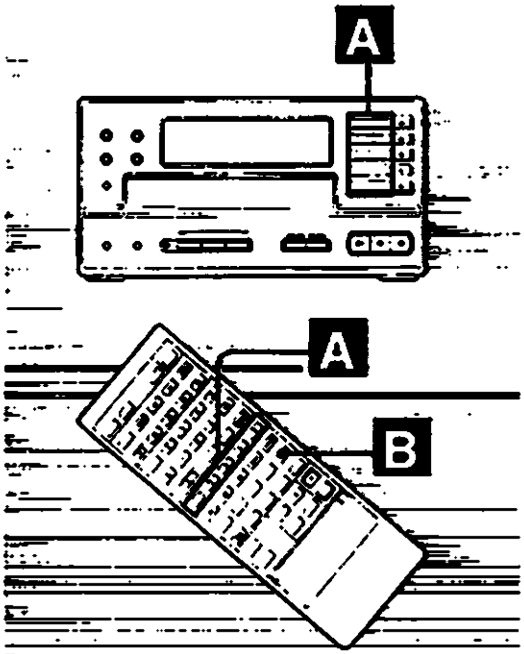
Pour repérer le début d'un disque donné et en commencer la lecture A

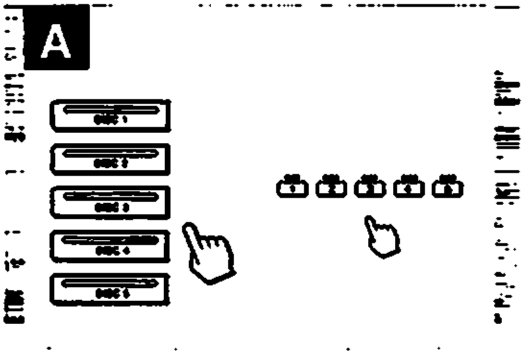
Appuyer sur la touche DISC 1 — 5 correspondant au disque.
En mode de lecture continue, la lecture du disque commence

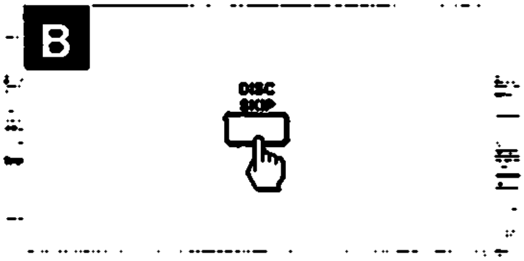
Pour passer au disque suivant B

(Possible uniquement avec la télécommande)

Appuyer sur DISC SKIP.
Pendant une lecture, le lecteur sélectionne le disque suivant et il en commence la lecture.
Pendant un arrêt ou une pause, le lecteur sélectionne le disque suivant et il passe en mode d'arrêt ou de pause.







CD Playing — Basic Operations

Locating a Particular Selection — Automatic Music Sensor (AMS)

The AMS locates the beginning of a selection.

To locate a selection in sequence

To locate the beginning of the current or preceding selection A
Press |◁◁◀◀ (|◀◀ on the remote commander) as many times as required

To locate the beginning of a succeeding selection B
Press ▶▶▷▷| (▶▶| on the remote commander) as many times as required

To locate a selection directly

(Possible only with the remote commander)

1. Set the TUNER/EQ/CD selector to CD.
2. Press the numeric button (a) for the selection

If the selection number is greater than 10
Use the >10 and 1 to 10 buttons.
"10" functions as the figure "0".
e.g. To choose selection number 22, press ">10", "2", "2".
To choose selection number 30, press ">10", "3", "10".

Lecture d'un disque compact — Exploitation de base

Pour repérer une plage donnée — Recherche automatique de plage (AMS)

La fonction AMS permet de repérer le début d'une plage.

Pour repérer une plage dans l'ordre

Pour repérer le début de la plage en cours ou d'une plage précédente A
Appuyer sur |◁◁◀◀ (|◀◀ sur la télécommande) autant de fois que nécessaire.

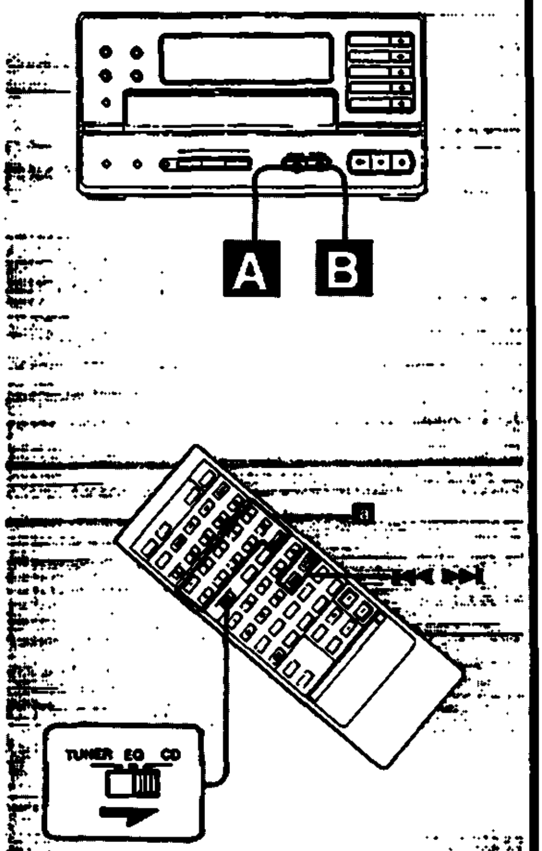
Pour repérer le début d'une plage ultérieure B
Appuyer sur ▶▶▷▷| (▶▶| sur la télécommande) autant de fois que nécessaire.

Pour repérer une plage directement

(Possible uniquement avec la télécommande)

1. Mettre le sélecteur TUNER/EQ/CD sur CD.
2. Appuyer sur la touche numérique (a) de la plage voulue.

Si le numéro de la plage est supérieur à 10
Utiliser les touches >10 et 1 à 10.
"10" fonctionne comme le chiffre "0".
Ex. Pour sélectionner la plage No 22, appuyer sur ">10", "2" et "2"
Pour sélectionner la plage numéro 30, appuyer sur ">10", "3" et "10".



CD Playing — Basic Operations

Locating a Particular Point in a Selection

This operation is not possible with the remote commander

You can locate any particular point in the selection. This function works during play or pause.

To search while monitoring the sound

To move forward at high speed B
Keep ▶▶▷▷I depressed and release it at the desired point.

To move backward at high speed A
Keep I◁◁◀◀ depressed and release it at the desired point

To search quickly

1. Press II to put the unit in the pause mode.
2. Keep I◁◁◀◀ or ▶▶▷▷I depressed. The search speed increases, but there is no sound. Find the desired point by observing the display.
   Press II again or ▷ at the desired point to play

If you continue to press ▶▶▷▷I
If you continue to press ▶▶▷▷I once the end of the disc has been reached, "OVER" appears in the display window. Press I◁◁◀◀ to return to the normal display.

Lecture d'un disque compact — Exploitation de base

Pour repérer un point donné d'une plage

Cette opération n'est pas possible avec la télécommande

Il est possible de repérer n'importe quel point donné d'une plage. Cette fonction est opérationnelle pendant la lecture ou la pause

Pour effectuer la recherche avec contrôle du son

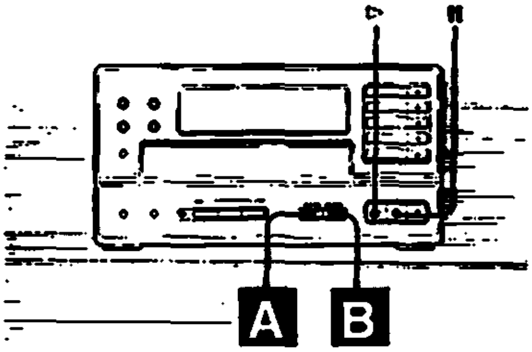
Pour déplacer la tête de lecture rapidement vers l'avant B
Maintenir ▶▶▷▷I enfoncée et la libérer au point voulu.

Pour déplacer la tête de lecture rapidement vers l'arrière A
Maintenir I◁◁◀◀ enfoncée et la libérer au point voulu.

Pour effectuer la recherche rapidement

1. Appuyer sur II pour mettre l'appareil en mode de pause.
2. Maintenir I◁◁◀◀ ou ▶▶▷▷I enfoncée.
   La vitesse de la recherche augmente, mais il n'y a pas de son Pour repérer le point voulu, observer l'affichage.
   Appuyer à nouveau sur II ou appuyer sur ▷ au point de lecture voulu.

Si l'on continue à appuyer sur ▶▶▷▷I
Si l'on continue à appuyer sur ▶▶▷▷I alors que le disque est arrivé à la fin, "OVER" apparaît sur la fenêtre d'affichage. Pour revenir à l'affichage normal, appuyer sur I◁◁◀◀



CD Playing — Basic Operations

Playing in a Random Order - Shuffle Play

Shuffle play function plays all the selections in one disc or all discs in a random order.

1 **Insert the disc(s) in the disc tray(s). (See page 13.)**

2 **Press SHUFFLE to choose whether to play one disc (1 DISC) or all discs (ALL DISCS).**

3 **Press ▷.**
[ ] appears and then shuffle play starts

To stop play
Press ■.

To cancel Shuffle Play
Press CONTINUE and return to the Continuous Play mode.

To select the desired disc
Press DISC 1 — 5 during "1 DISC" Shuffle Play. You cannot select the disc with DISC 1 — 5 during "ALL DISCS" Shuffle Play.

Lecture d'un disque compact — Exploitation de base

Lecture dans un ordre aléatoire - Fonction "shuffle"

La fonction "shuffle" reproduit toutes les plages d'un disque ou de tous les disques dans un ordre aléatoire.

1 **Mettre le(s) disque(s) en place dans le(s) tiroir(s). (Voir page 13.)**

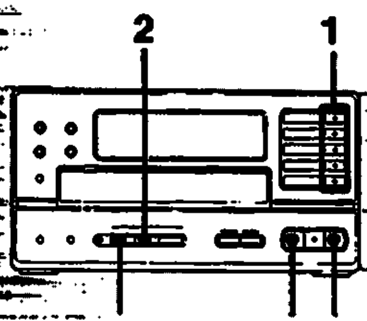
2 **Appuyer sur SHUFFLE pour choisir de lire un seul disque (1 DISC) ou tous les disques (ALL DISCS).**

3 **Appuyer sur ▷.**
[ ] apparaît et la lecture aléatoire commence.

Pour arrêter la lecture
Appuyer sur ■.

Pour annuler la fonction "shuffle"
Appuyer sur CONTINUE pour revenir au mode de lecture continue.

Pour sélectionner le disque
Appuyer sur DISC 1 — 5 pendant la lecture aléatoire "1 DISC". Pendant une lecture aléatoire "ALL DISCS", il n'est pas possible de sélectionner le disque avec DISC 1 — 5.



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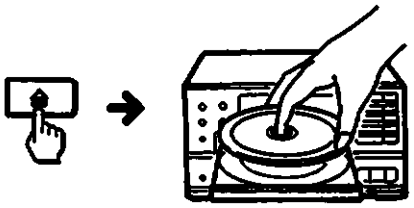

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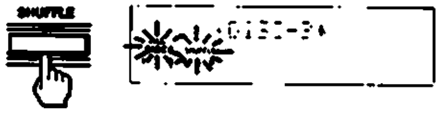

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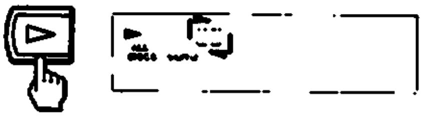


CD Playing — Basic Operations

Playing Repeatedly -- Repeat Play

The Repeat Play function repeats a single disc or all discs during Continuous Play and Program Play, and a single disc during Shuffle Play (1 DISC mode only). During Continuous Play mode only, the player can also repeat a single selection.

To repeat all the selections A

Press REPEAT before or during play so that "REPEAT" appears.
The player repeats the current playing mode.

To repeat a single selection B

(During Continuous Play mode only)

Press REPEAT twice before or during play so that "REPEAT 1" appears.
The player repeats the current selection.

Playing mode	Selections played
Continuous Play (1 DISC)	Repeats all the selections on the current disc (REPEAT), or the current selection (REPEAT 1).
Continuous Play (ALL DISCS)	Repeats all the selections on all discs (REPEAT), or the current selection (REPEAT 1).
Shuffle Play (1 DISC)	All selections on the disc are reshuffled.
Shuffle Play (ALL DISCS)	You cannot play repeatedly.
Program Play	Repeats all selections and/or programs in their programmed order

To cancel Repeat Play
Press REPEAT so that "REPEAT" or "REPEAT 1" disappears.

Lecture d'un disque compact — Exploitation de base

Lecture répétée - Fonction "repeat"

La fonction "repeat" répète la lecture d'un seul disque ou de tous les disques pendant une lecture continue et une lecture programmée, et d'un seul disque pendant une lecture aléatoire (mode 1 DISC uniquement). En mode de lecture continue uniquement, le lecteur pourra également répéter la lecture d'une seule plage.

Pour répéter toutes les plages A

Appuyer sur REPEAT avant ou après la lecture de façon que "REPEAT" apparaisse.
Le lecteur répète le mode de lecture en cours.

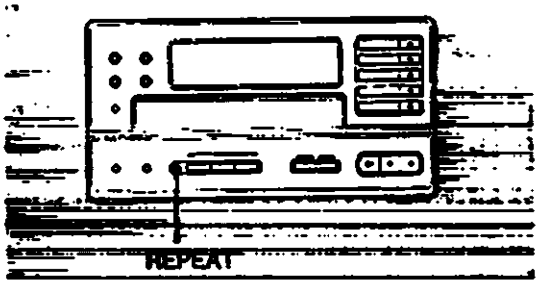
Répétition d'une seule plage B

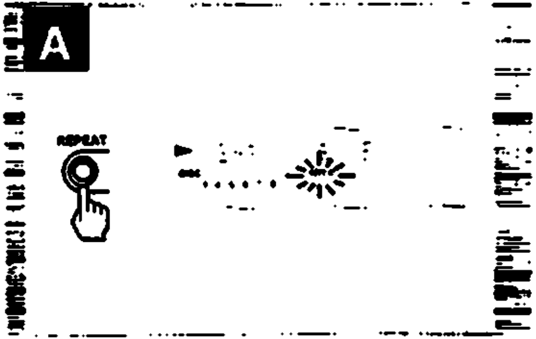
(Pendant une lecture continue uniquement)

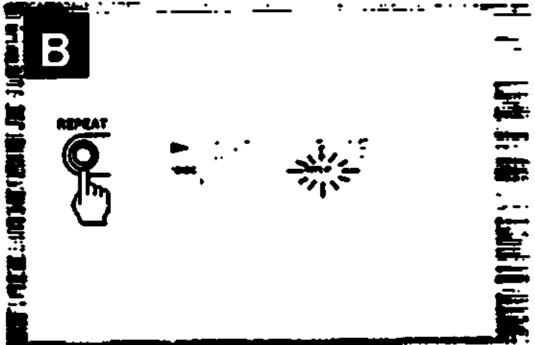
Appuyer deux fois sur REPEAT avant ou après la lecture de façon que "REPEAT 1" apparaisse.
Le lecteur répète la plage en cours.

Mode de lecture	Plage lue
Lecture continue (1 DISC)	Répète toutes les plages du disque en cours (REPEAT), ou la plage en cours (REPEAT 1).
Lecture continue (ALL DISCS)	Répète toutes les plages de tous les disques (REPEAT), ou la plage en cours (REPEAT 1)
Lecture aléatoire (1 DISC)	Toutes les plages du disque sont lues dans un nouvel ordre aléatoire.
Lecture aléatoire (ALL DISCS)	La lecture répétée n'est pas possible.
Lecture programmée	Répète toutes les plages et/ou les programmes dans l'ordre programmé.

Pour annuler la lecture répétée
Appuyer sur REPEAT de façon que "REPEAT" ou "REPEAT 1" disparaisse.







CD Playing — Basic Operations

Playing in a Desired Order — Program Play

You can make a program of up to 32 selections from all the discs in the order you want them to be played.

To program selections directly

(Possible only with the remote commander)

You can program directly one selection or one whole disc in each program step.

1. **Insert the disc(s) in the disc tray(s). (See page 13.)**

2. **Press PROGRAM.**
   "PROGRAM" appears on the display

3. **Press DISC 1 — 5 to choose a disc.**

To program all selections in the disc as one program step, repeat step 3 and choose another disc.

(to be continued)

Lecture d'un disque compact — Exploitation de base

Lecture dans un ordre donné — Lecture programmée

Il est possible de programmer jusqu'à 32 plages de tous les disques qui seront reproduites dans l'ordre choisi.

Pour programmer des plages directement

(Possible uniquement avec la télécommande)

Il est possible de programmer directement une plage ou un disque entier pour chaque étape d'un programme.

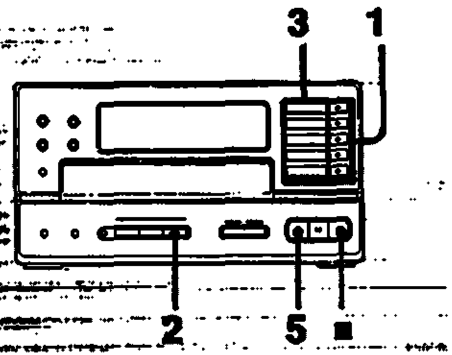
1. **Mettre le(s) disque(s) en place dans le(s) tiroir(s). (Voir page 13.)**

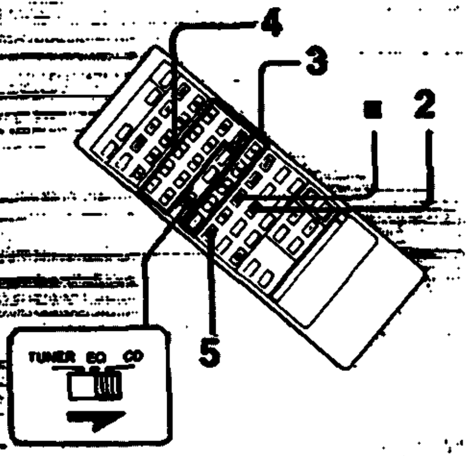
2. **Appuyer sur PROGRAM.**
   "PROGRAM" apparaît sur l'affichage.

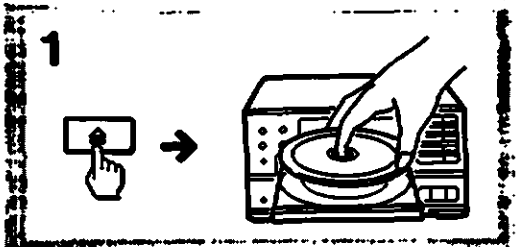
3. **Appuyer sur DISC 1 — 5 pour sélectionner un disque.**

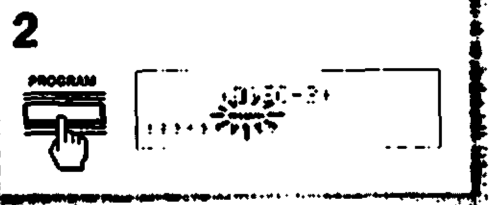
Pour programmer toutes les plages d'un disque comme étape d'un programme, répéter l'opération 3 et sélectionner un autre disque.

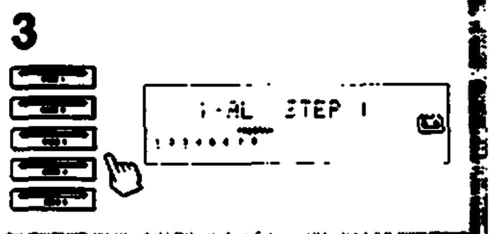
(à suivre)











CD Playing — Basic Operations

(continued)

4 Press the numeric buttons for the desired track number in the desired order.
The display shows the following
a Disc number
b Last programmed selection
c The order to be played
and then changes to show **d** the total playing time.

To program additional selections from the same disc, repeat step 4.
To program additional selections from another disc, repeat step 3 and 4.

5 Press ▷.

To stop play
Press ■.
To restart the same program play, press ▷.

Lecture d'un disque compact — Exploitation de base

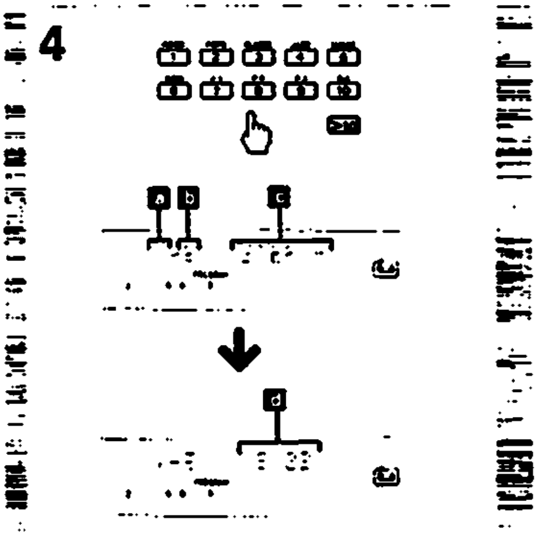
(suite)

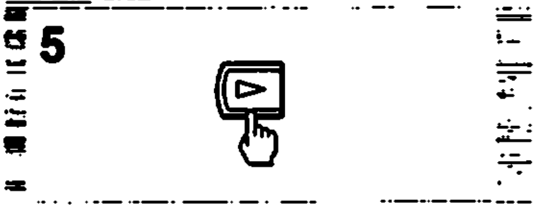
4 Appuyer sur les touches numériques du numéro de plage souhaité et dans l'ordre voulu.
L'affichage indique les informations suivantes:
a Numéro du disque
b Dernière plage programmée
c Ordre de lecture
puis il commute sur **d** Temps de lecture total.

Pour programmer d'autres plages du même disque, recommencer l'opération 4.
Pour programmer d'autres plages d'un autre disque, recommencer les opérations 3 et 4

5 Appuyer sur ▷.

Pour arrêter la lecture
Appuyer sur ■.
Pour recommencer la même lecture programmée, appuyer sur ▷.





If the selection number is greater than 10
Use the >10 and 1 to 10 buttons.
"10" functions as the figure "0".
e.g. To choose selection number 22, press ">10", "2", "2".
To choose selection number 30, press ">10", "3", "10".

The display does not show the total playing time in step 4 if:
- you have programmed a selection whose track number is over 20
- the total time has exceeded 1.000 minutes.

To see the "STEP" display
Press TIME/MEMO (TIME on the remote commander) during stop mode.
The total playing time display changes to the display showing the number of programmed selections ("STEP") for 1 second.

Si le numéro de la plage est supérieur à 10
Utiliser les touches >10 et 1 à 10.
"10" fonctionne comme le chiffre "0".
Ex. Pour sélectionner la plage numéro 22, appuyer sur ">10", "2" et "2".
Pour sélectionner la plage numéro 30, appuyer sur ">10", "3" et "10".

L'affichage n'indique pas le temps de lecture total à l'opération 4 si:
- l'on a programmé une plage dont le numéro est supérieur à 20
- le temps de lecture total dépasse 1 000 minutes.

Pour visualiser l'affichage "STEP"
Appuyer sur TIME/MEMO (TIME sur la télécommande) en mode d'arrêt.
L'affichage du temps de lecture total commute sur l'affichage du nombre de plages programmées ("STEP") pendant 1 seconde.

CD Playing — Basic Operations

To resume normal play
Press CONTINUE and return to the Continuous Play mode. The program is erased.

To check the program

(Possible only with the remote commander)

Press CHECK.
The disc, track, and the order to be played of the first selection appears on the display Each time you press CHECK, the next selection in the program appears, and after the last selection, "CHECK END" appears

To erase the programmed selections

To erase the entire program
Press ■ once during stop; twice during play. "ALL CLEAR" appears.

To erase the last selection in a program
(Possible only with the remote commander)
Press CLEAR during stop
The last selection is erased each time you press CLEAR.

To erase a specific selection
(Possible only with the remote commander)

1. Press CHECK repeatedly until the selection to be erased appears.
2. Press CLEAR.

To erase the program of a whole disc
Press OPEN/CLOSE ⏏ for that disc

To add a selection to the end of a program

(Possible only with the remote commander)

Press DISC 1 — 5 and the desired numeric button(s).

The whole program is erased also when:

- you turn off the power
- you select other play modes

Lecture d'un disque compact — Exploitation de base

Pour reprendre la lecture normale
Appuyer sur CONTINUE pour revenir au mode de lecture continue Le programme s'efface.

Pour vérifier le contenu du programme

(Possible uniquement avec la télécommande)

Appuyer sur CHECK.
Le disque, la plage et l'ordre de lecture de la première plage apparaissent sur l'affichage. Chaque fois qu'on appuie sur CHECK, la plage suivante du programme apparaît, et après la dernière plage, "CHECK END" apparaît

Pour effacer les plages programmées

Pour effacer le programme en entier
Appuyer une fois sur ■ pendant l'arrêt, et deux fois pendant la lecture. "ALL CLEAR" apparaît.

Pour effacer la dernière plage d'un programme
(Possible uniquement avec la télécommande)
Appuyer sur CLEAR pendant l'arrêt.
La dernière plage s'efface chaque fois qu'on appuie sur CLEAR.

Pour effacer une plage donnée
(Possible uniquement avec la télécommande)

1. Appuyer sur CHECK de façon répétée jusqu'à ce que la plage à effacer apparaisse
2. Appuyer sur CLEAR.

Pour effacer la programmation d'un disque en entier
Appuyer sur OPEN/CLOSE ⏏ pour ce disque.

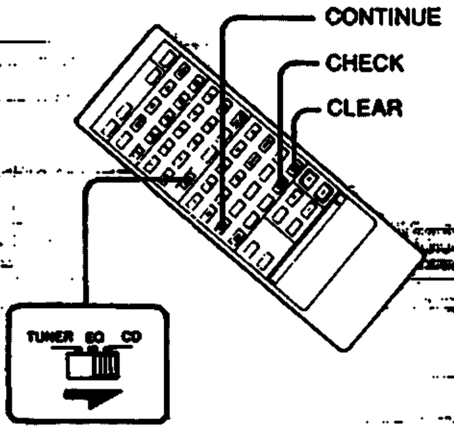
Pour ajouter une plage à la fin du programme

(Possible uniquement avec la télécommande)

Appuyer sur DISC 1 — 5 et sur la(les) touche(s) numérique(s) voulue(s)

Le programme entier s'effacera également si:

- l'on éteint l'appareil
- l'on sélectionne d'autres modes de lecture.



CD Playing — Basic Operations

To program selections while checking the total time

1. Press DISC SKIP instead of DISC 1 — 5 to choose the desired disc, and press ⏮◁◁◀◀ and ▶▶▷▷⏭ (⏮◀◀ and ▶▶⏭ on the remote commander) instead of the numeric buttons to choose the desired selection.
2. Check the total time, and repeat step 1 if not satisfactory.
3. Press PROGRAM while the total time or step number is flashing.

To make a program for editing a tape

You can divide your program into programs A and B by inserting a pause between them. Use this function to make a program for both sides of a tape at one time.

1. Program the selections for side A.
2. Press ⏸
   "B" and "PAUSE" appear and the total playing time is reset to "0".
3. Program the selections for side B

To play the program for side B
When the selections for side A have been played, the unit will pause and "B" appears on the display. Press ▷ or ⏸ to start playing

To record the program
Follow the procedures for "CD Synchronized Recording" on page 43. When you select ⊂⊃ for the direction mode of the cassette deck, the tape reverses automatically while the CD player is in the pause mode, and the recording for side B starts automatically

Note
Be sure to program the selections so that the total playing time of each side does not exceed the tape length of one side.

Lecture d'un disque compact — Exploitation de base

Pour programmer des plages pendant la vérification du temps total

1. Appuyer sur DISC SKIP au lieu de DISC 1 — 5 pour sélectionner le disque, et appuyer sur ⏮◁◁◀◀ et ▶▶▷▷⏭ (⏮◀◀ et ▶▶⏭ sur la télécommande) au lieu des touches numériques pour sélectionner la plage.
2. Vérifier le temps total et recommencer l'opération 1 si le résultat n'est pas satisfaisant.
3. Appuyer sur PROGRAM pendant que la durée totale ou le numéro d'étape clignote.

Pour programmer des plages à des fins de montage

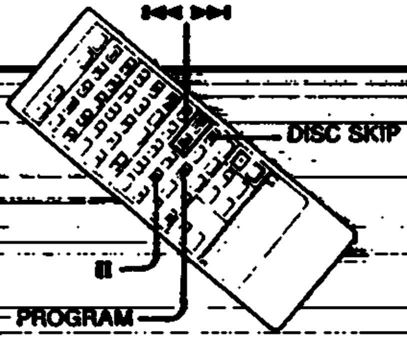
On pourra diviser le programme en deux parties, A et B, en insérant une pause entre elles. Utiliser cette fonction pour programmer les deux faces de la bande en une seule fois.

1. Programmer les plages de la face A.
2. Appuyer sur ⏸.
   "B" et "PAUSE" apparaissent et le temps de lecture total est ramené à "0".
3. Programmer les plages de la face B

Pour lire le programme de la face B
Quand la lecture des plages de la face A est terminée, l'appareil passe en mode de pause et "B" apparaît sur l'affichage. Appuyer sur ▷ ou ⏸ pour commencer la lecture.

Pour enregistrer un programme
Effectuer les opérations de la section "Enregistrement synchronisé d'un disque compact" à la page 43 Si l'on sélectionne ⊂⊃ comme mode de défilement de la platine-cassette, la bande s'inverse automatiquement pendant que le lecteur CD est en mode de pause, et l'enregistrement de la face B commence automatiquement.

Remarque
Bien programmer les plages de façon que le temps de lecture total de chaque face ne dépasse pas la longueur de la bande



Radio Reception

The automatic tuning allows you to receive stations whose signal is strong enough When the signal is too weak, use the manual tuning.

Tuning in Automatically

1 **Press BAND repeatedly until the desired band appears.**
As you press BAND, the band changes as follows:
FM ↔ AM

2 **Press MODE so that the TUNING indicator lights up.**

3 **Keep – or + depressed for more than 1 second.**
"AUTO" appears on the display and the unit tunes in a station automatically.

Repeat step 3 until the desired station appears.

Réception de la radio

**L'accord automatique permet de capter les stations dont les signaux sont suffisamment puissants.
Si les signaux sont trop faibles, utiliser l'accord manuel.**

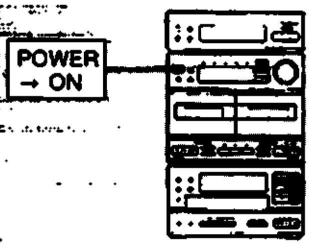
Accord automatique

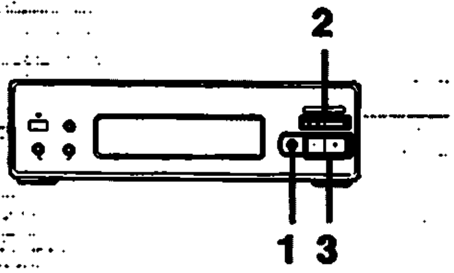
1 **Exercer des pressions successives sur BAND jusqu'à ce que la gamme souhaitée apparaisse.**
La gamme change comme suit à chaque pression sur BAND·
FM ↔ AM

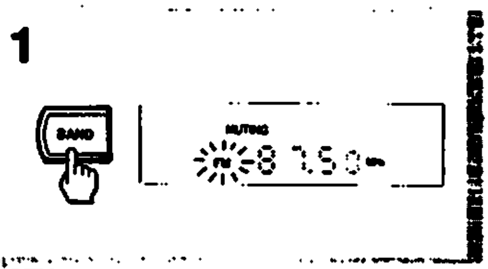
2 **Appuyer sur MODE de façon que le témoin TUNING s'allume.**

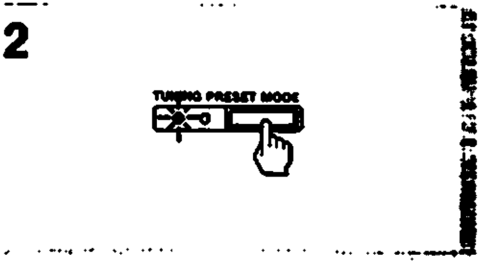
3 **Maintenir – ou + enfoncé pendant plus d'une seconde.**
"AUTO" apparaît sur l'afficheur et l'appareil accorde la station automatiquement.

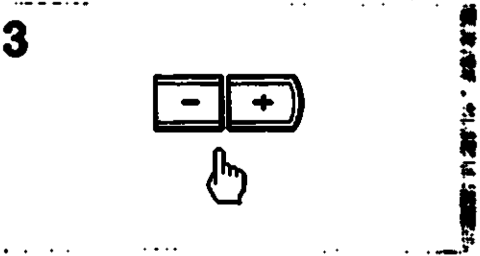
Répéter l'étape 3 jusqu'à ce que la station souhaitée apparaisse.











Radio Reception

Tuning in Manually

1 **Press BAND repeatedly until the desired band appears.**

2 **Press MODE so that the TUNING indicator lights up.**

3 **Press – or + repeatedly until the desired station appears.**

Indicators on the display

TUNED:	Appears when a station with sufficient signal strength is tuned in
STEREO	Appears when an FM stereo program with sufficient signal strength is received.

Antenna adjustment A

For AM reception, find the best location for the supplied AM loop antenna.

When an FM program is noisy or hard to receive

Press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will be improved. Press the button again to restore the stereo effect

Changing the AM tuning interval
The AM tuning interval is preset at the factory to 10 kHz.
If you use the system where the frequency allocation system is different from the preset interval, change the interval as follows:

1 Turn on the power.
2 Tune in an AM station.
3 Disconnect the AC power cord.
4 Connect the AC power cord again while pressing TUNING +.

To reset the interval, follow the same procedure

Important

When the interval is changed, stored stations will be erased from the memory.

Réception de la radio

Accord manuel

1 **Exercer des pressions successives sur BAND jusqu'à ce que la gamme souhaitée apparaisse.**

2 **Appuyer sur MODE de façon que le témoin TUNING s'allume.**

3 **Exercer des pressions successives sur – ou + jusqu'à ce que la gamme souhaitée apparaisse.**

Indications sur l'afficheur

TUNED.	Apparaît quand est accordée une station dont l'intensité du signal est suffisante
STEREO:	Apparaît quand est reçue une station FM stéréo dont l'intensité du signal est suffisante

Réglage de l'antenne A

A la réception AM, rechercher la position de l'antenne cadre AM fournie qui donne les meilleurs résultats

Quand une émission FM est parasitée ou difficile à capter

Appuyer sur STEREO/MONO de façon que "MONO" apparaisse sur l'afficheur. Il n'y aura pas d'effet stéréo, mais la réception sera améliorée. Pour retrouver l'effet stéréo, appuyer à nouveau sur la touche.

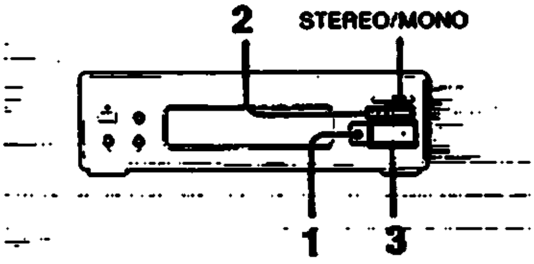
Modification de l'intervalle d'accord AM
L'intervalle d'accord AM a été préréglé en usine sur 10 kHz.
Si l'on utilise un système où le système d'allocation des fréquences est différent de l'intervalle préréglé, changer l'intervalle comme suit:

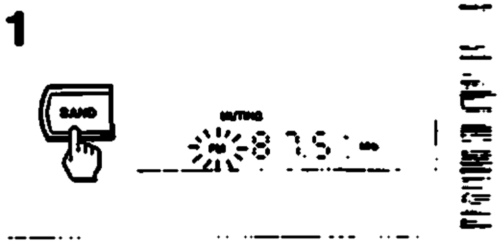
1 Mettre la chaîne sous tension.
2 Accorder une station AM quelconque
3 Débrancher le cordon d'alimentation secteur.
4 Rebrancher le cordon d'alimentation secteur en appuyant sur TUNING +

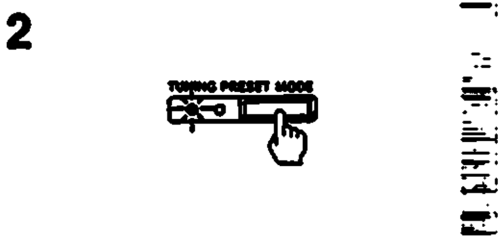
Pour réinitialiser l'intervalle, recommencer la même procédure.

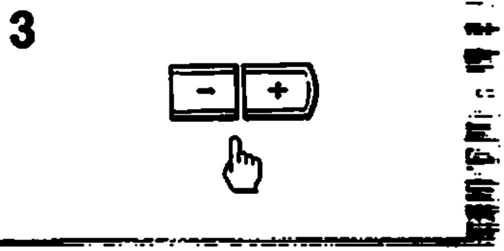
Important

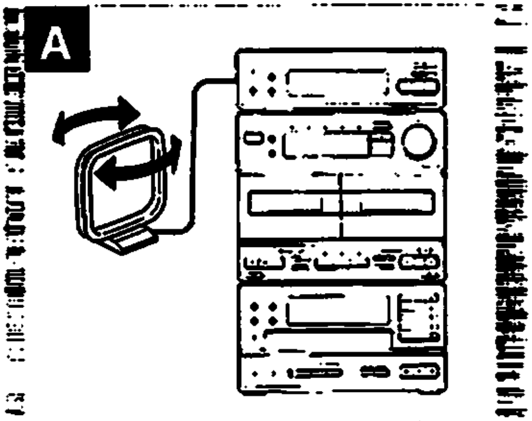
Lorsque l'intervalle est modifié, les stations mémorisées sont effacées de la mémoire.











Radio Reception

Storing Stations

You can store up to 20 FM stations and 10 AM stations in a desired sequence, so that you can tune in the stored station directly by entering the preset station number.
This operation is not possible with the remote commander.

1 **Tune in the desired station.**

2 **Press MEMORY/NEXT.**
"MEMORY" and the preset station numbers appear on the display.

3 **While "MEMORY" is on (for several seconds), press – or + to select a desired preset number.**

4 **Press MEMORY/NEXT.**
"MEMORY" disappears, and the station is stored.

Repeat steps 1 to 4 for each station to be stored.

If you cannot store a station successfully
Press MEMORY/NEXT again so that "MEMORY" appears, and then proceed with steps 3 and 4 above.
Be sure to operate while "MEMORY" is on (about 4 seconds).

When you have selected the wrong preset station number
Press MEMORY/NEXT again and then proceed with the steps 3 and 4.

To change the preset station
Store a desired station at the desired preset number by proceeding with the above steps.
The station previously preset will be erased.
Erasing only is not possible

Réception de la radio

Mémorisation des stations

Il est possible de mémoriser un maximum de 20 stations FM et 10 stations AM dans l'ordre souhaité. Ensuite, il est possible de rappeler directement ces stations en spécifiant le numéro de la station préréglée.
Cette opération n'est pas possible avec la télécommande.

1 **Accorder la station souhaitée.**

2 **Appuyer sur MEMORY/NEXT.**
"MEMORY" et les numéros de stations préréglées apparaissent sur l'afficheur.

3 **Pendant que "MEMORY" est affiché (quelques secondes), appuyer sur – ou + pour sélectionner le numéro de préréglage souhaité.**

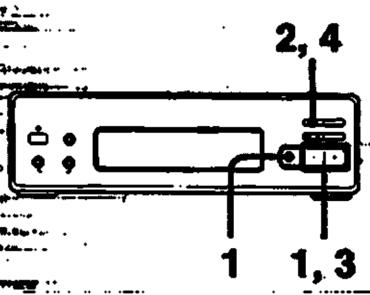
4 **Appuyer sur MEMORY/NEXT.**
"MEMORY" disparaît et la station est mémorisée.

Répéter les démarches 1 à 4 pour chaque stations à mémoriser.

En cas d'impossibilité de mémorisation d'une station
Appuyer à nouveau sur MEMORY/NEXT pour faire apparaître "MEMORY", puis effectuer les démarches 3 et 4 ci-dessus.
Bien veiller à procéder pendant que "MEMORY" est affiché (environ 4 secondes).

En cas de sélection erronée du numéro de station préréglée
Appuyer de nouveau sur MEMORY/NEXT et effectuer les démarches 3 et 4.

Pour modifier une station préréglée
Mémoriser la station souhaitée sur le numéro de station préréglée voulu en effectuant les démarches ci-dessus
La station préalablement préréglée s'efface.
Il n'est pas possible d'effacer une station sans en mémoriser une autre.



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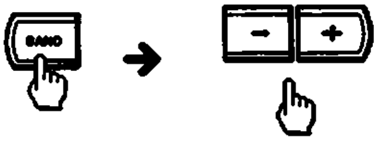

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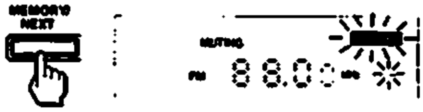

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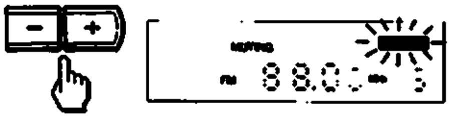

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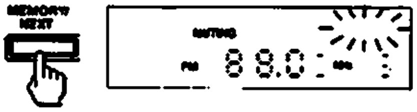


Radio Reception

To Tune in a Preset Station

1. **Press BAND to select a desired band.**
2. **Press MODE so that the PRESET indicator lights up.**
3. **Press – or + to select the desired preset station number.**

To tune in a preset station directly A

(Possible only with the remote commander)

1. Set the TUNER/EQ/CD numeric button function selector to TUNER.
2. Press BAND to select a desired band
3. Press the numeric buttons to select the desired preset station number.

Réception de la radio

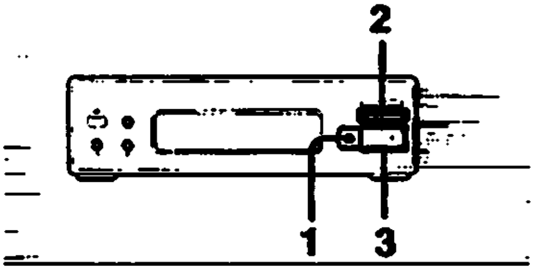
Pour accorder une station préréglée

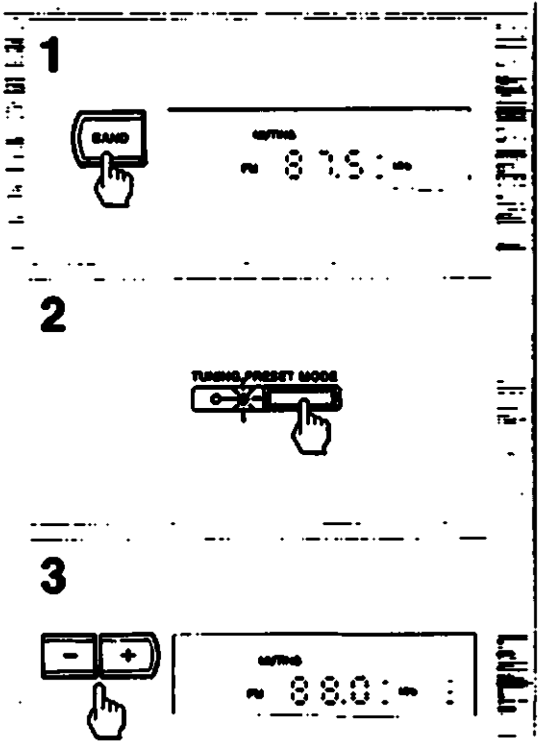
1. **Appuyer sur BAND pour sélectionner la gamme souhaitée.**
2. **Appuyer sur MODE de façon que l'indicateur PRESET apparaisse.**
3. **Appuyer sur – ou + pour sélectionner le numéro de station préréglée souhaité.**

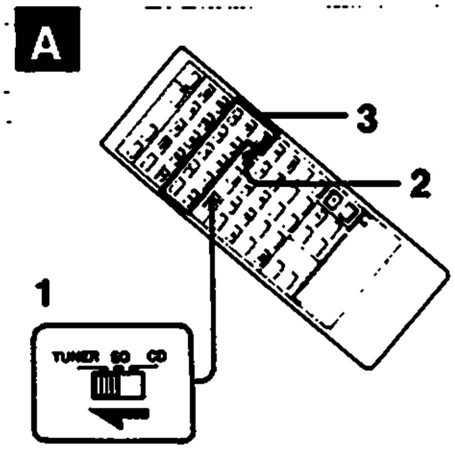
Pour accorder une station préréglée directement A

(Possible uniquement avec la télécommande)

1. Régler le sélecteur de fonction des touches numériques TUNER/EQ/CD sur TUNER.
2. Appuyer sur BAND pour sélectionner la gamme souhaitée.
3. Appuyer sur les touches numériques pour sélectionner le numéro de station préréglée souhaité.







Tape Playback

Playback Operation

1 Insert a tape into deck A or deck B.

2 Press ▷ (for front side playback) or ◁ (for reverse side playback).

To stop playback
Press □.

To stop for a moment during play (deck B only)
Press ❚❚.
To resume play, press it again.

How to select the DIRECTION mode **A**

Set the DIRECTION selector to the desired position.
To play back one side:
Select ⇄
To play back both sides.
Select ⊂⊃
To play back both decks in succession:
Select RELAY. (See page 31.)
The DIRECTION mode setting is effective for both decks.

Lecture d'une cassette

Lecture

1 Mettre une cassette en place dans la platine A ou la platine B.

2 Appuyer sur ▷ (pour lecture de face avant) ou ◁ (pour lecture de face inverse).

Pour arrêter la lecture
Appuyer sur □.

Pour arrêter momentanément la lecture (platine B seulement)
Appuyer sur ❚❚ .
Pour reprendre la lecture, appuyer de nouveau.

Sélection du mode de défilement (DIRECTION) **A**

Régler le sélecteur DIRECTION sur la position désirée.
Pour reproduire une seule face.
Sélectionner ⇄.
Pour reproduire les deux faces:
Sélectionner ⊂⊃.
Pour reproduire successivement les deux faces des deux cassettes:
Sélectionner RELAY. (Voir page 31.)
Le mode de défilement est valable pour les deux platines.

When you play back the tapes of both decks
You can listen to the playback of only the tape in deck A.

When listening to the cassette recorded with the Dolby noise reduction system* B
Set the DOLBY NR selector to ON. The setting is active for both decks.

What is the Dolby NR system?
Dolby NR (noise reduction) system reduces tape hiss noise in low-level high-frequency signals The system boosts these signals during recording and lowers them during playback.

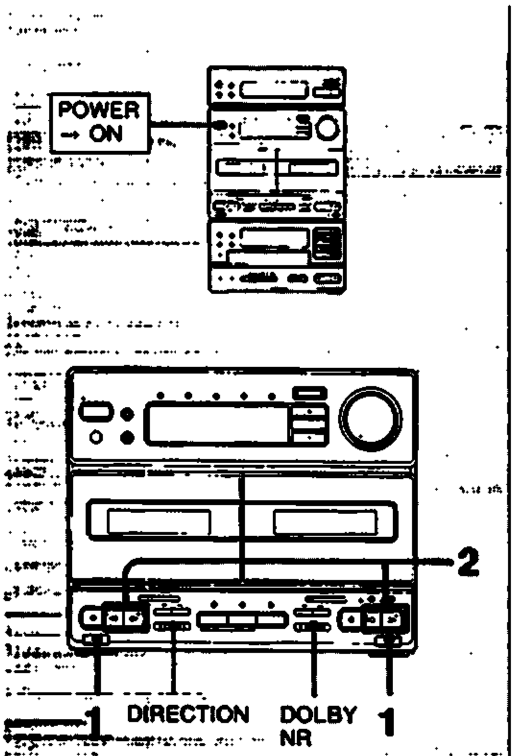
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and double-D symbol ᗡᗞ are trademarks of Dolby Laboratories Licensing Corporation.

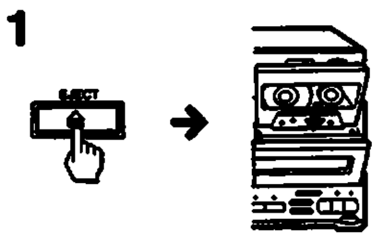
A la lecture des deux platines
On ne pourra écouter que la cassette de la platine A.

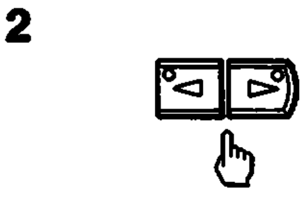
Lors de l'écoute d'une cassette enregistrée avec le système de réduction de bruit Dolby* B
Régler le commutateur DOLBY NR sur ON. Le réglage est valable pour les deux platines.

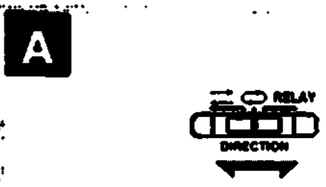
En quoi consiste le système de réduction de bruit Dolby?
Le système de réduction de bruit Dolby (NR) atténue le sifflement de la bande, perceptible en présence des signaux de haute fréquence d'un niveau réduit. Il accentue ces signaux à l'enregistrement et les réduit ensuite lors de la lecture.

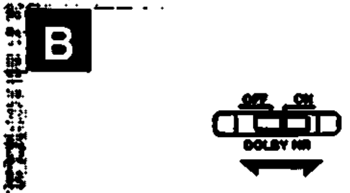
- Réduction de bruit Dolby fabriquée sous licence de Dolby Laboratories Licensing Corporation.
  DOLBY et le symbole double-D ᗡᗞ sont des marques de Dolby Laboratories Licensing Corporation.











Tape Playback

Locating the Beginning of a Selection during Playback — Automatic Music Sensor (AMS)

The AMS locates the beginning of a selection by detecting the blank space between selections. To assure correct operation of the AMS, there must be a blank of 3 seconds or more between selections

1. **Press ◁ or ▷ to start playback.**
2. **Press ◀◀ or ▶▶ referring to the following table.**

Side of the cassette being played (Direction indicator)	Desired selection	
	Next selection	Selection being played
Front side (▷✱)	▶▶	◀◀
Reverse side (✱◁)	◀◀	▶▶

Playing Back Automatically after Fast Winding — Auto Play

This function starts playback automatically from the beginning of the side after fast winding.

To start playback from the beginning of the front side
Press ▷ while keeping ◀◀ depressed.

To start playback from the beginning of the reverse side
Press ◁ while keeping ▶▶ depressed

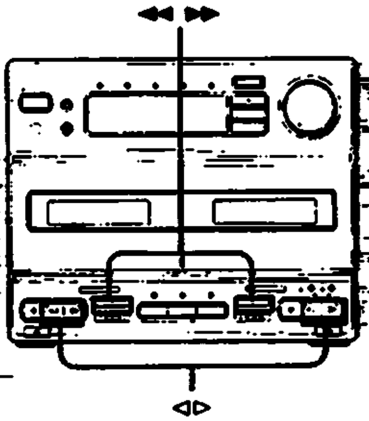
Lecture d'une cassette

Recherche du début d'une plage pendant la lecture – Fonction AMS (Recherche automatique de plage)

Le dispositif AMS retrouve le début des plages musicales en détectant les espaces blancs entre celles-ci. Pour garantir un bon fonctionnement du dispositif AMS, ces espaces blancs doivent durer au moins 3 secondes.

1. **Appuyer sur ◁ ou ▷ pour lancer la lecture.**
2. **Appuyer sur ◀◀ ou ▶▶ en tenant compte du tableau suivant.**

Face de la cassette reproduite (Témoin de défilement)	Plage souhaitée	
	Plage suivante	Plage en cours de lecture
Face avant (▷✱)	▶▶	◀◀
Face inverse (✱◁)	◀◀	▶▶



Lecture automatique après un bobinage rapide – Lecture automatique

Cette fonction lance automatiquement la lecture au début de la face après le bobinage rapide.

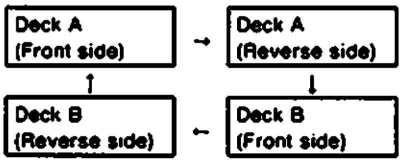
Pour lancer la lecture au début de la face avant
Appuyer sur ▷ en maintenant ◀◀ enfoncé

Pour lancer la lecture au début de la face inverse
Appuyer sur ◁ en maintenant ▶▶ enfoncé.

Tape Playback

Playing Both Decks in Succession — Relay Play

Relay play always follows the sequence below regardless of where playback starts. When playback of the reverse side of the tape in deck B is completed, the following sequence continues 4 more times.



1 **Insert recorded cassettes in both decks.**

2 **Set the DIRECTION selector to RELAY.**

3 **Press ▷ or ◁ on either deck.**

To stop relay play
Press ▢.

Notes on Cassettes

To protect recording A

Break out the tab on the left shoulder of the cassette side of which recording is to be protected.

To re-record the cassette B

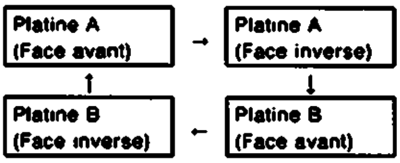
Cover each slot with plastic tape.

When using a type II (CrO_2) or type IV (METAL) cassette, be careful not to cover the detector slots which are necessary for automatic tape type detection. C

Lecture d'une cassette

Lecture des deux platines à la suite — Lecture à relais

La lecture à relais s'effectue toujours dans l'ordre ci-dessous, quel que soit l'endroit où elle est lancée. A la fin de la lecture de la face inverse de la cassette de la platine B, la séquence suivante se poursuit 4 fois supplémentaires



1 **Mettre une cassette enregistrée en place dans chaque platine.**

2 **Régler le sélecteur DIRECTION sur RELAY.**

3 **Appuyer sur ▷ ou ◁ de l'une ou l'autre platine.**

Pour arrêter la lecture à relais
Appuyer sur ▢.

Remarques sur les cassettes

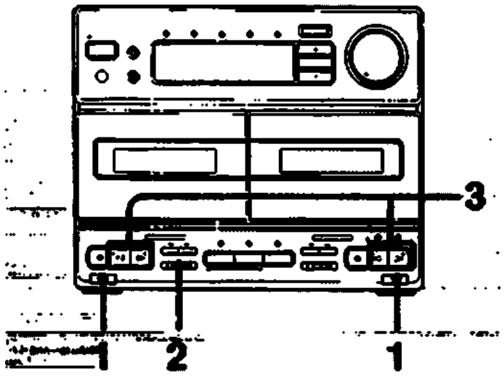
Pour protéger l'enregistrement A

Briser le taquet sur l'arête du côté gauche de la face dont on désire protéger l'enregistrement.

Pour réenregistrer la cassette B

Recouvrir chaque fente avec un morceau de ruban adhésif.

Lors de l'emploi d'une cassette de type II (CrO_2) ou de type IV (METAL), prendre soin de ne pas recouvrir les fentes de détection requises pour la détection automatique du type de cassette. C



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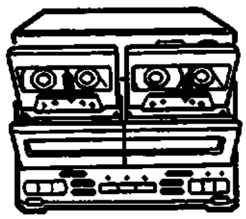

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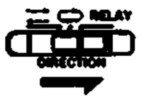

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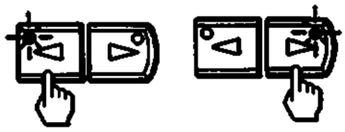
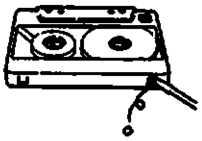


A



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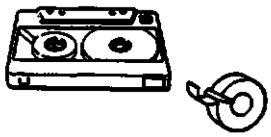

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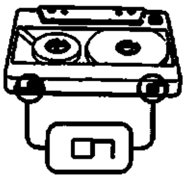


Adjusting the Sound Effects

Making Use of the Preset Equalizer Settings

When the system is shipped from the factory, 6 specially recommended settings of the graphic equalizer, AI BC*, and surround effects are stored. You can enjoy the sound effects by simply choosing from the preset settings according to the program source.

Press the desired numeric button (a) on the remote commander by referring to the table below. A

	Display	Applications
1	ROCK	For rock music
2	POPS	For intensifying the vocal sound
3	CLASSIC	For music with a great deal of reverberation, such as classical music.
4	JAZZ	For jazz
5	MOVIE	For DOLBY surround encoded video programs
6	BGM	For background music

You can also select the preset equalizer setting by pressing PRESET on the front panel repeatedly

When you do not want to apply the equalizer effect B

Press DIRECT so that the indicator on the button lights up.

Changing the Display C

The amplifier has two modes of display.

Press DISPLAY.
The display changes each time you press it.

Réglage des effets sonores

Utilisation des réglages d'égalisation préréglés

Quand l'appareil quitte nos usines, 6 réglages de l'égalisateur graphique, du système AI BC* et de l'effect ambiant, particulièrement recommandés sont mémorisés. On pourra profiter des effets sonores en choisissant tout simplement l'un de ces réglages préréglés, en fonction de la source de programme

Appuyer sur la touche numérique souhaitée (a), sur la télécommande, en tenant compte du tableau ci-dessous.

	Affichage	Applications
1	ROCK	Pour le rock
2	POPS	Pour renforcer les voix
3	CLASSIC	Pour la musique renfermant beaucoup de réverbérations, notamment la musique classique
4	JAZZ	Pour le jazz
5	MOVIE	Pour les programmes vidéo codés en Dolby surround
6	BGM	Pour la musique de fond

Il est également possible de choisir le réglage d'égalisation préréglé en appuyant de façon répétée sur PRESET, sur le panneau avant.

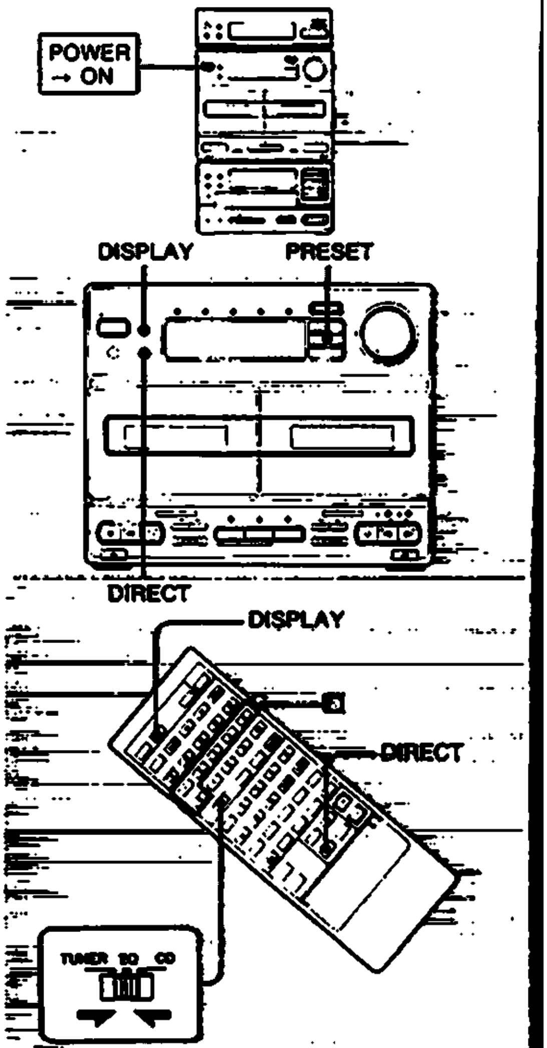
Quand on ne souhaite pas appliquer d'effet d'égalisation B

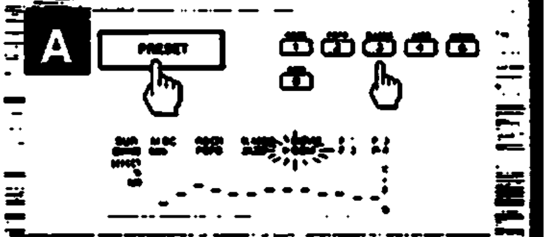
Appuyer sur DIRECT de façon que le témoin de la touche s'allume.

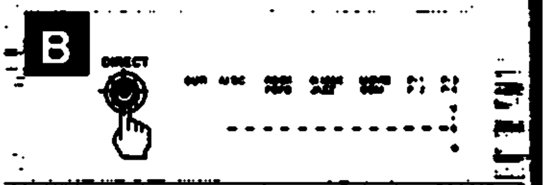
Changement de l'affichage C

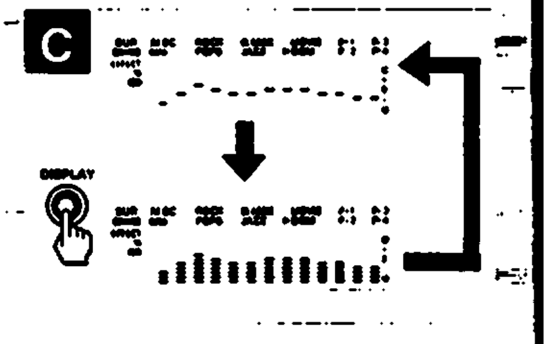
L'amplificateur possède deux modes d'affichage.

Appuyer sur DISPLAY.
L'affichage change chaque fois qu'on appuie sur la touche









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* AI BC = AI Bass Control

* AI BC = Commande de grave AI

Adjusting the Sound Effects

Total Effect Control

This function allows you to strengthen or weaken the overall effect of the equalizer curve and of AI BC stored in the preset equalizer setting.

1 Select the desired preset equalizer setting (see page 32).

2 Press TOTAL EFFECT CONTROL – or +.
To strengthen the effect, press +.
The effect increases to 125%, 150%, 175%, or 200%, rising one step each time you press +.
To weaken the effect, press –.
The effect decreases to 75%, 50%, or 25%, dropping one step each time you press –.

Confirming the effect of the adjustment

Press DIRECT.
You can compare the difference between the adjusted setting and no equalizer effect.

The sound you adjust
You can record the sound you have adjusted with the TOTAL EFFECT CONTROL –/+ buttons. When playing back that tape, use the DIRECT mode. Doubling the effect of the preset equalizer setting may cause distortion.

Réglage des effets sonores

Commande d'effet total

Cette fonction permet de renforcer ou de diminuer l'effet d'ensemble de la courbe d'égalisation et de la commande AI BC enregistrées dans les réglages d'égalisation préréglés

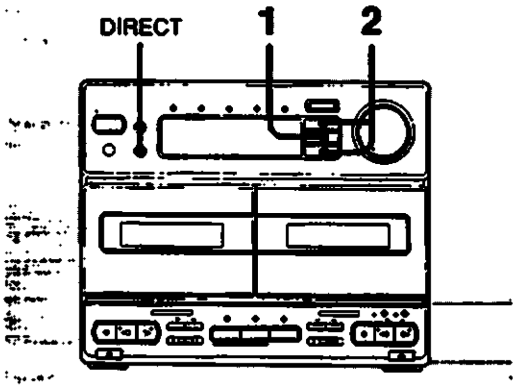
1 Sélectionner le réglage souhaité de l'égaliseur préréglé (voir page 32).

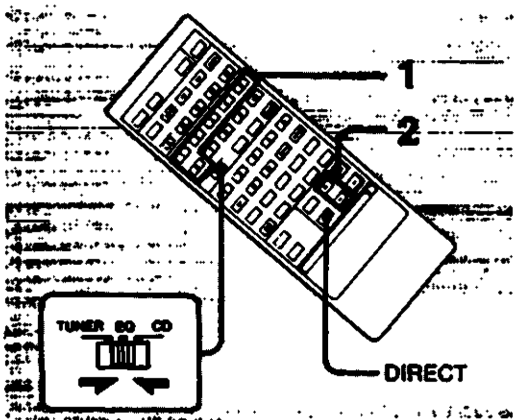
2. Appuyer sur TOTAL EFFECT CONTROL – ou +.
Pour renforcer l'effet, appuyer sur +.
L'effet augmente d'un cran à chaque pression sur +, passant à 125%, puis à 150%, 175% et 200%.
Pour diminuer l'effet, appuyer sur –.
L'effet diminue d'un cran à chaque pression sur –, passant à 75%, 50% et 25%.

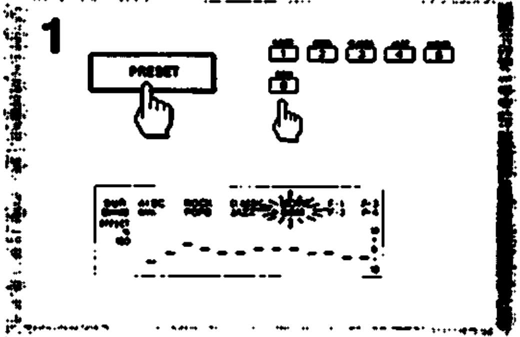
Pour vérifier l'effet du réglage

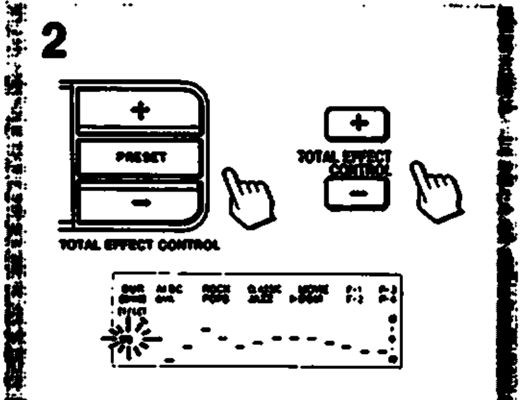
Appuyer sur DIRECT.
On pourra comparer la différence entre l'effet d'égalisation et l'absence d'égalisation.

Son réglé
Il est possible d'enregistrer le son que l'on a réglé avec les touches TOTAL EFFECT CONTROL –/+. Pour lire cette bande, utiliser le mode DIRECT. On risque de provoquer une distorsion si l'on double l'effet des réglages d'égalisation préréglés.









Adjusting the Sound Effects

Storing the Sound That You Adjusted — Personal File

You can store sound effect that you adjusted using the Total Effect Control function in the Personal File. You can easily call up the setting at any time. You can store up to 4 settings.
This operation is possible only with the remote commander.

1 **Select a preset equalizer setting and adjust the sound with TOTAL EFFECT CONTROL +/–.**
(See page 32, 33.)

2 **Press MEMORY.**
"▶" for "F-1" through "F-4" flash.

3 **Press the numeric button (F-1 to F-4) for the desired Personal File.**
The sound that you adjusted is stored in the selected Personal File. The setting previously stored in the file is erased and replaced by the new setting.

Calling up the setting from the Personal File

- You can select a Personal File directly with the remote commander.

1 Set the TUNER/EQ/CD selector to EQ.

2 Press the numeric buttons (F-1 to F-4) for the desired Personal File.

- You can also select the Personal File by pressing PRESET on the unit repeatedly.

Réglage des effets sonores

Mémorisation du réglage sonore — Fichier personnel

Il est possible de mémoriser l'effet sonore que l'on vient de régler avec la fonction de commande d'effet sonore dans le fichier personnel. Il sera facile de rappeler ces derniers à tout moment. On pourra mémoriser un maximum de 4 réglages. Cette opération n'est possible qu'avec la télécommande.

1 **Sélectionner un réglage d'égalisation préréglé et régler le son avec les touches TOTAL EFFECT CONTROL +/–.**
(Voir pages 32 et 33.)

2 **Appuyer sur MEMORY.**
"▶" clignote pour "F-1" à "F-4".

3 **Appuyer sur la touche numérique (F-1 à F-4) du fichier personnel voulu.**
Le réglage sonore est mémorisé dans le fichier personnel sélectionné. Le réglage préalablement mémorisé dans le fichier s'efface et il est remplacé par le nouveau.

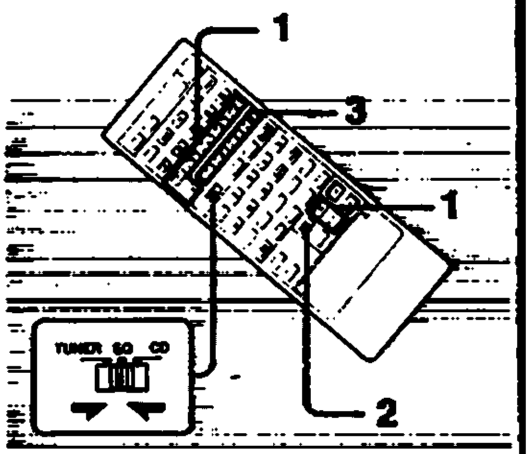
Rappel des réglages du fichier personnel

- Le fichier personnel pourra être sélectionné directement sur la télécommande.

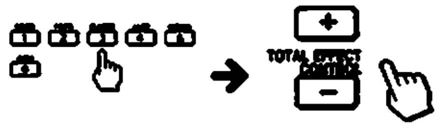
1 Régler le sélecteur TUNER/EQ/CD sur EQ.

2 Appuyer sur la touche numérique (F-1 à F-4) du fichier personnel voulu.

- Il est également possible de sélectionner le fichier personnel en appuyant de façon répétée sur PRESET sur l'appareil.



1



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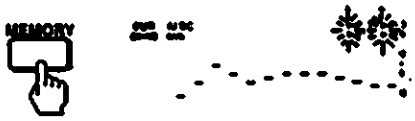

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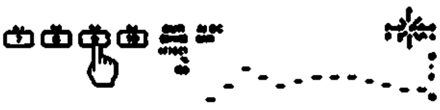


CD Playing — Advanced Operations

On Custom Files

The unit is equipped with a memory which allows you to store two types of information called "Custom Files". Custom Files for up to 184 discs can be retained in the unit's memory

The types of Custom Files

Disc Memo	To store a name of up to 10 letters for an individual disc (Page 36)
Sound Field File	To store the sound effect adjusted with the Sound Field Coordinator System (Page 38)

Memory back up for the Custom Files
Custom Files, once memorized, are retained in the unit's memory for approximately 1 month without AC power supply Since the memory is stored in the CD player and not on the disc, you cannot perform Custom File functions with the same disc on a different player.

What is this indication?

FILE FULL This indication appears when MEMO INPUT or SOUND FIELD FILE is pressed when no Custom File can be memorized for the disc currently put in the player. To make a Custom File for the disc, clear the Custom File of another disc.

To clear Custom Files of all discs at once
When all the trays are empty, press SYSTEM POWER to turn on the unit while keeping ERASE pressed. "ALL ERASE" will be displayed and all custom files are cleared.

To check all the items of the Custome Files
Press TIME/MEMO while "NO DISC" is displayed (when all the trays are empty). Each time you press TIME/MEMO, all the Disc Memos appear and "DISC MEMO" and/or "S.F.FILE" indicators light up sequentially If you press TIME/MEMO when the last disc's information is displayed, "CHECK END" is displayed and returns to "NO DISC" after a few seconds. To clear the Custom File for a single disc, press TIME/MEMO repeatedly until the undesired Custom File is displayed Then press ERASE. "FILE ERASE" is displayed.

Lecture d'un disque compact — Fonctions avancées

Les fichiers personnalisés

L'appareil est doté d'une mémoire qui permet de conserver deux types d'informations appelées "fichiers personnalisés". Il est possible de mémoriser des fichiers personnalisés pour un maximum de 184 disques, dans la mémoire de l'appareil.

Les deux types de fichier personnalisés

Mémoire de disque	Pour conserver le nom (maximum de 10 caractères) d'un disque individuel (Page 36)
Fichier de champ sonore	Pour conserver l'effet sonore réglé avec le coordonnateur de champ sonore (Page 38)

Sauvegarde de mémoire pour les fichiers personnalisés
Une fois mémorisés, les fichiers personnalisés sont conservés dans la mémoire de l'appareil pendant environ 1 mois sans alimentation secteur. La mémoire étant sauvegardée dans le lecteur CD et non sur le disque, il n'est pas possible de solliciter les fichiers personnalisés si le disque est lu sur un autre lecteur CD.

Que signifie cette indication?

FILE FULL Cette indication apparaît quand on appuie sur MEMO INPUT ou SOUND FIELD FILE alors qu'il n'est pas possible de mémoriser un fichier personnalisé pour le disque actuellement en place dans le lecteur. Pour créer un fichier personnalisé pour ce disque, effacer le fichier personnalisé d'un autre disque.

Pour effacer les fichiers personnalisés de tous les disques à la fois
Quand tous les tiroirs sont vides, appuyer sur SYSTEM POWER pour mettre l'appareil sous tension tout en maintenant ERASE enfoncé. "ALL ERASE" apparaît et tous les fichiers personnalisés s'effacent.

Pour vérifier tous les paramètres des fichiers personnalisés
Appuyer sur TIME/MEMO pendant que "NO DISC" est affiché (quand tous les tiroirs sont vides). Chaque fois qu'on appuie sur TIME/MEMO, les paramètres de la mémoire de disque apparaissent et les témoins "DISC MEMO" et/ou "S.F FILE" s'allument successivement. Si l'on appuie sur TIME/MEMO pendant l'affichage des informations du dernier disque, "CHECK END" s'affiche et l'affichage revient à "NO DISC" quelques secondes plus tard. Pour effacer le fichier personnalisé d'un seul disque, appuyer de façon répétée sur TIME/MEMO jusqu'à ce que le fichier personnalisé à effacer s'affiche Puis, appuyer sur ERASE. "FILE ERASE" s'affiche.

CD Playing — Advanced Operations

Assigning Names to a Disc — Disc Memo

You can assign a name within 10 characters (letters or symbols) for each disc using the Disc Memo function. The name appears on the display every time you put the disc in the player. One name can be assigned for one disc.

1 **Insert the disc(s) in the disc tray(s). (See page 13.)**

2 **Press DISC SKIP to choose the disc.**
Note: Make sure that the total number of selections and the total playing time are displayed before going on to the next step

3 **Press MEMO INPUT.**
The cursor under the first character flashes. (The name of the Disc Memo appears if you have already assigned a name to that disc.)

4 **Press CHARACTER ◁ or ▷ to select the letter or symbol for the first character while the character is flashing. (See "Usable letters and symbols" below.)**

5 **Press CURSOR.**
The cursor moves to the next character.

Repeat steps 4 and 5 to make a name (up to 10 characters).

6 **Press MEMO INPUT.**
"MEMO FILE" appears
The Disc Memo is memorized, and "DISC MEMO" appears on the display.

Usable letters and symbols

79 kinds of letters and symbols and a space can be used for the Disc Memo When you press CHARACTER ◁/▷ for the first time a space appears, and each time you press CHARACTER ▷, the letters and symbols appear in the following order:

(space) ABCDEFGHIJKLMNOPQRS
TUVWXYZ& abcdefghijklmnopqrstuvwxyz
' , . : = [ ] ( ) ! ? • / + – II 9876543210

Press CHARACTER ◁ to call up a previous letter or symbol

Lecture d'un disque compact — Fonctions avancées

Attribution d'un nom à un disque — Mémoire de disque

Il est possible d'attribuer un nom de 10 caractères maximum (lettres ou symboles) à chaque disque avec la fonction de mémoire de disque. Le nom apparaît sur l'afficheur chaque fois que le disque est mis en place dans le lecteur. On ne pourra attribuer qu'un seul nom à chaque disque.

1 **Mettre le(s) disque(s) en place dans le(s) tiroir(s). (Voir page 13.)**

2 **Appuyer sur DISC SKIP pour sélectionner le disque.**
Remarque: S'assurer que le nombre total de plages et le temps de lecture total sont affichés avant de passer à l'opération suivante.

3 **Appuyer sur MEMO INPUT.**
Le curseur sous le premier caractère clignote. (Le nom de la mémoire du disque apparaît si l'on a déjà attribué un nom à ce disque.)

4 **Appuyer sur CHARACTER ◁ ou ▷ pour sélectionner la lettre ou le symbole du premier caractère pendant que le caractère clignote. (Voir "Lettres et symboles utilisables" ci-dessous.)**

5 **Appuyer sur CURSOR.**
Le curseur se déplace sur le caractère suivant

Répéter les opérations 4 et 5 de façon à composer le nom entier (10 caractères maximum).

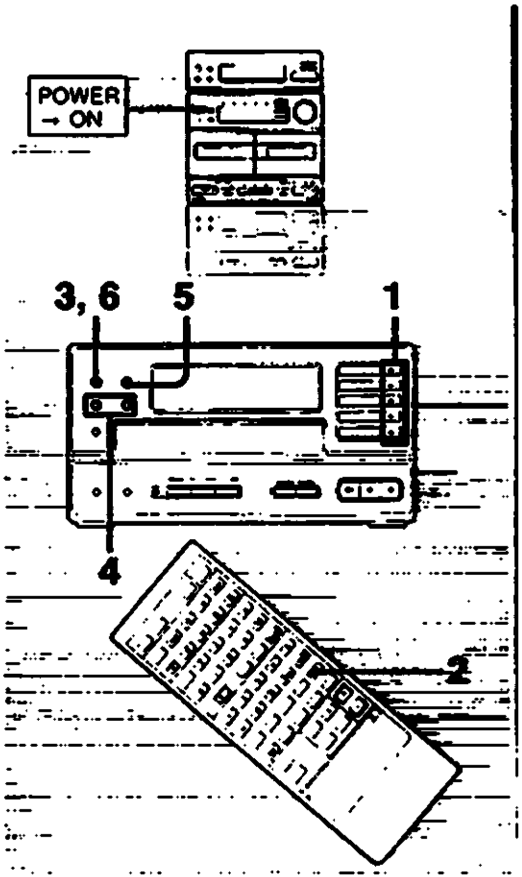
6 **Appuyer sur MEMO INPUT.**
"MEMO FILE" apparaît
La mémoire du disque est mémorisée, et "DISC MEMO" apparaît sur l'afficheur

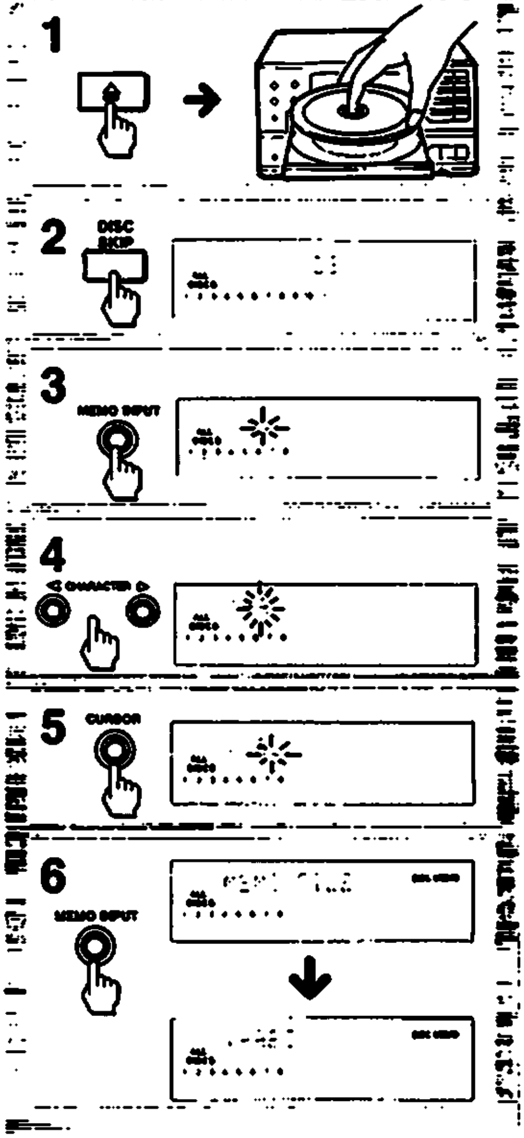
Lettres et symboles utilisables

79 types de lettres et symboles pourront être utilisés pour la mémoire de disque, ainsi que des espaces. Quand on appuie sur CHARACTER ◁/▷ la première fois qu'un espace apparaît, et chaque fois qu'on appuie sur CHARACTER ▷, les lettres et les symboles apparaissent dans l'ordre suivant:

(espace) ABCDEFGHIJKLMNOPQRS
TUVWXYZ& abcdefghijklmnopqrstuvwxyz
' , . . = [ ] ( ) ! ? • / + – II 9876543210

Appuyer sur CHARACTER ◁ pour rappeler une lettre ou un symbole précédent.





Note
You can input a Disc Memo only when the player is in the stop mode.

Remarque
On ne pourra entrer une mémoire de disque que si le lecteur est en mode d'arrêt.

CD Playing — Advanced Operations

To rewrite letters or symbols

Before step 6

Press CURSOR so that the letter/symbol to be changed flashes and then select the desired letter/symbol by pressing CHARACTER ◁/▷.

To delete the letter/symbol, press CLEAR on the remote commander.

After step 6

Repeat from step 2.

To display the Disc Memo for the disc being played

Press TIME/MEMO (TIME on the remote commander) twice during Shuffle or Program Play, and three times during Continuous Play. To return to the normal display, press TIME/MEMO again.

To erase the Disc Memo

1. Insert the disc with the Disc Memo to be erased in one of the disc trays.
2. Press MEMO INPUT.
   The Disc Memo appears, and the first character flashes.
3. Press ERASE.
   "FILE ERASE" appears and "DISC MEMO" indication disappears.

You can also erase a Disc Memo by changing all the characters of that name into "spaces".

Lecture d'un disque compact — Fonctions avancées

Pour réécrire des lettres ou des symboles

Avant d'effectuer l'opération 6

Appuyer sur CURSOR de sorte que la lettre/symbole à modifier clignote et sélectionner la lettre/symbole voulue en appuyant sur CHARACTER ◁/▷.

Pour effacer la lettre/symbole, appuyer sur CLEAR de la télécommande.

Après l'opération 6

Recommencer depuis l'opération 2.

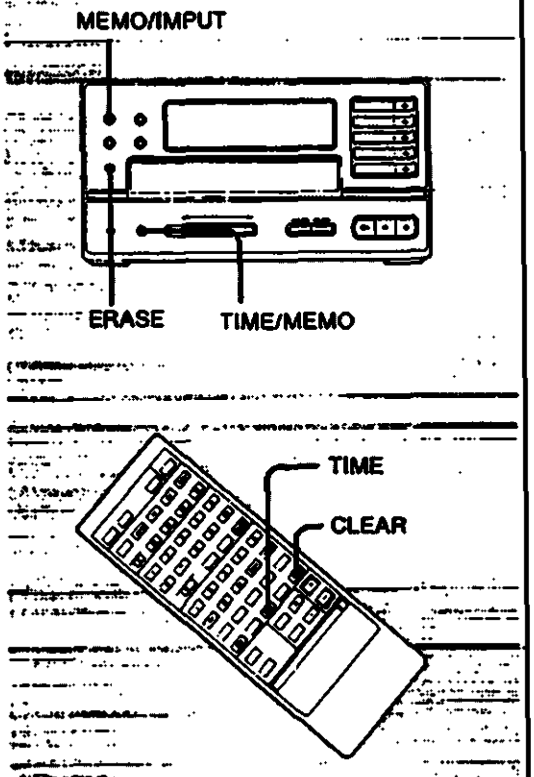
Pour afficher la mémoire de disque du disque en cours de lecture

Appuyer sur TIME/MEMO (TIME sur la télécommande) deux fois pendant une lecture aléatoire ou programmée, et trois fois pendant une lecture continue. Pour revenir à l'affichage normal, appuyer à nouveau sur TIME/MEMO.

Pour effacer la mémoire de disque

1. Mettre le disque dont on veut effacer la mémoire en place dans l'un des tiroirs de disque.
2. Appuyer sur MEMO INPUT.
   La mémoire de disque apparaît et la première lettre clignote.
3. Appuyer sur ERASE.
   "FILE ERASE" apparaît et l'indication "DISC MEMO" disparaît.

On pourra également effacer la mémoire de disque en remplaçant tous les caractères du nom par des espaces



CD Playing — Advanced Operations

Storing the Sound Adjustment — Sound Field File

You can store the sound that you adjusted using the preset equalizer settings (page 32) or Personal File (page 34) for each disc

1. **Insert the disc(s) in the disc tray(s). (See page 13.)**
2. **Press DISC SKIP to choose the disc.**
   Note: Make sure that the total number of selections and the total playing time are displayed before going on to the next step
3. **Select the desired preset equalizer setting or Personal File (see pages 32 and 33).**
4. **Press SOUND FIELD FILE.**
   The sound adjustment is memorized and "S.F.FILE" appears on the display

To memorize a new sound adjustment on the disc
Repeat steps 2 to 4

To call up the Sound Field File

The stored setting is called up when you insert a disc with Sound Field File only when "CD" is selected for the program source and when:
- — the total playing time for that disc is displayed
- — you start playing
- — that disc is selected during Shuffle Play or Program Play.

The setting is not called up while checking the Custom Files (page 35).

To erase the Sound Field File

1. Insert the disc with the Sound Field File that you want to erase.
2. Press SOUND FIELD FILE.
3. Press ERASE while "S.F.FILE" is displayed.
   "FILE ERASE" appears and the "S.F FILE" indication disappears.

Lecture d'un disque compact — Fonctions avancées

Mémorisation du réglage sonore — Fichier de champ sonore

Il est possible de mémoriser, pour chaque disque, l'effet sonore que l'on vient de régler à l'aide des réglages d'égalisation préréglés (page 32) ou du fichier personnel (page 34).

1. **Mettre le(s) disque(s) en place dans le(s) tiroir(s). (Voir page 13.)**
2. **Appuyer sur DISC SKIP pour sélectionner le disque.**
   Remarque. S'assurer que le nombre total de plages et le temps de lecture total sont affichés avant de passer à l'opération suivante
3. **Sélectionner le réglage d'égalisation préréglé ou le fichier personnel souhaité (voir pages 32 et 33).**
4. **Appuyer sur SOUND FIELD FILE.**
   Le réglage sonore est mémorisé et "S.F.FILE" apparaît sur l'afficheur.

Pour mémoriser un nouveau réglage sonore sur le disque
Recommencer les opérations 2 à 4.

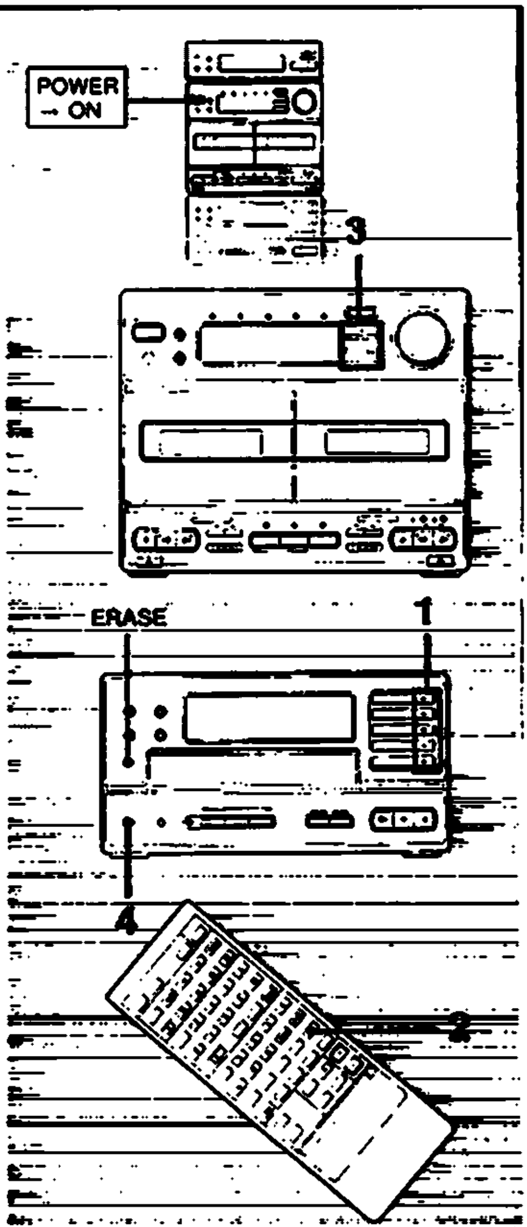
Pour rappeler un fichier de champ sonore

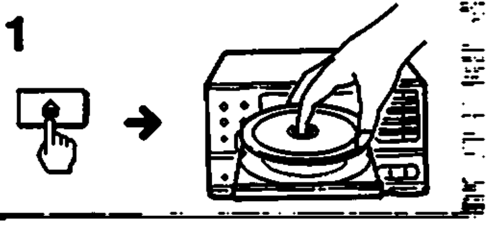
Quand on insère un disque doté d'un fichier de champ sonore, le réglage mémorisé n'est rappelé que si l'on sélectionne "CD" comme source de programme ou que:
- — la durée de lecture totale de ce disque est affichée
- — l'on déclenche la lecture
- — ce disque est sélectionné pendant une lecture aléatoire ou une lecture programmée.

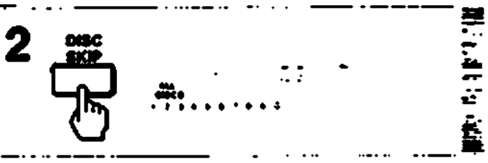
Le réglage n'est pas rappelé pendant la vérification des fichiers personnalisés (page 35).

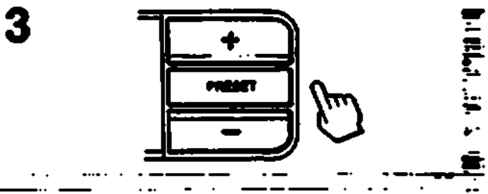
Pour effacer le fichier de champ sonore

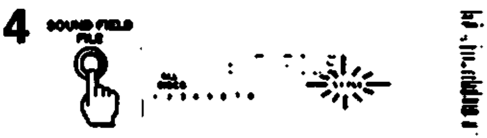
1. Mettre le disque dont on veut effacer le fichier de champ sonore en place dans le lecteur.
2. Appuyer sur SOUND FIELD FILE.
3. Appuyer sur ERASE pendant que "S.F.FILE" est affiché.
   L'indication "FILE ERASE" apparaît et l'indication "S.F FILE" disparaît











Recording (Deck B)

Recording Operation

This operation is not possible with the remote commander

1 **Insert a blank tape into deck B.**

2 **Select a program source and play it.**

3 **Set the DIRECTION selector.**
To record one side, select ⇄.
To record both sides, select ⊂⊃.

4 **Set DOLBY NR to ON or OFF.**

5 **Press REC ●.**
The cassette deck enters the recording pause mode.

6 **If the desired direction indicator is not illuminated, select the side to be recorded.**
For front side recording, press ▷.
For reverse side recording, press ◁.

7 **Press PAUSE II.**
The pause mode is released and recording starts

To stop recording
Press □.

Notes

- Even if you select ⊂⊃ for the direction mode, recording stops at the end of the reverse side. To record both sides, be sure to start with the front side.
- The recording level is fixed and cannot be adjusted manually.

Enregistrement (Platine B)

Enregistrement

Cette opération n'est pas possible avec la télécommande.

1 **Mettre une cassette vierge en place dans la platine B.**

2 **Sélectionner la source de programme et la reproduire.**

3 **Régler le sélecteur DIRECTION.**
Pour enregistrer une seule face, sélectionner ⇄.
Pour enregistrer les deux faces, sélectionner ⊂⊃

4 **Régler DOLBY NR sur ON ou OFF.**

5 **Appuyer sur REC ●.**
La platine se met en mode de pause d'enregistrement.

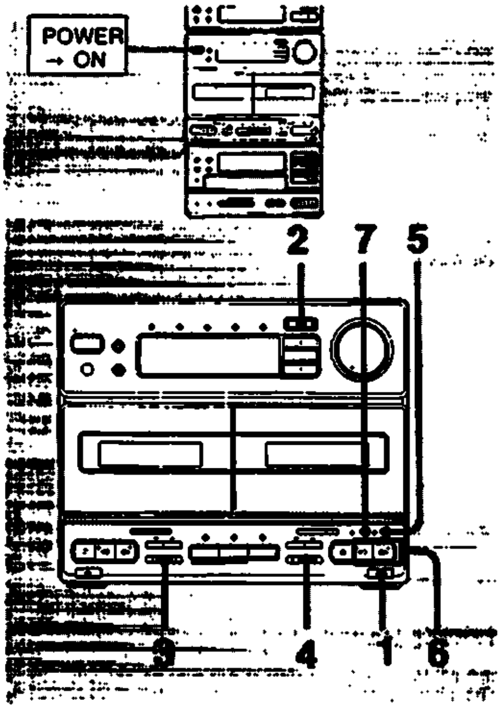
6 **Si le témoin de sens de défilement voulu n'est pas allumé, sélectionner la face à enregistrer.**
Pour enregistrer la face avant, appuyer sur ▷.
Pour enregistrer la face inverse, appuyer sur ◁.

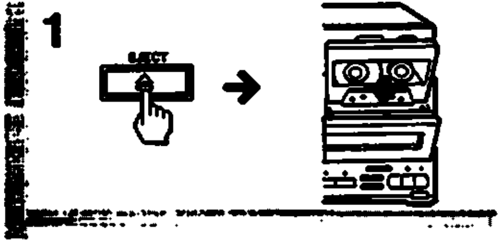
7 **Appuyer sur PAUSE II.**
Le mode de pause est libéré et l'enregistrement est lancé

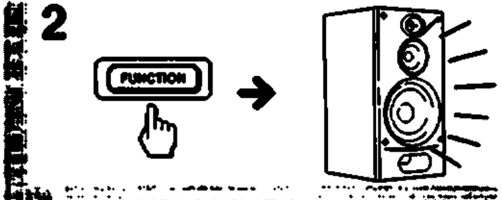
Pour arrêter l'enregistrement
Appuyer sur □.

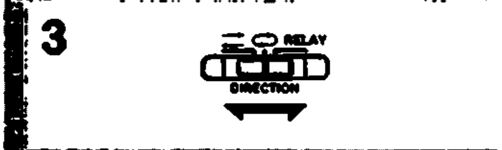
Remarques

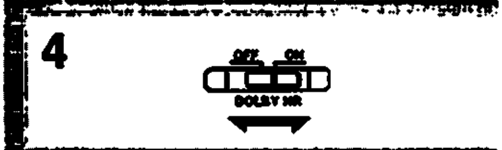
- L'enregistrement s'arrête à la fin de la face inverse même si le mode de défilement a été réglé sur ⊂⊃. Pour enregistrer les deux faces, bien veiller à commencer sur la face avant.
- Le niveau d'enregistrement est fixe et ne peut donc pas être ajusté manuellement.

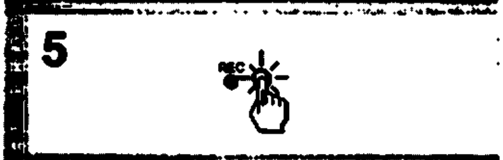


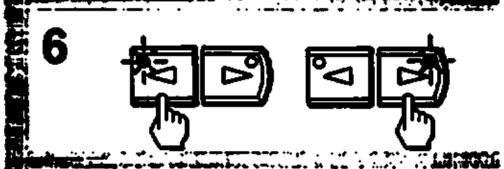


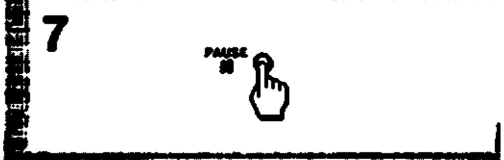












Recording (Deck B)

Inserting a Blank Space during Recording

This operation is possible only with the remote commander

1 **Press ○ during recording at the position where the blank space is to be inserted.**
The indicator on the REC ● button flashes and the tape runs without recording After 4 seconds, the unit enters the recording pause mode

2 **Press II at the position where you want to start recording again.**
Recording restarts

To make a blank of more than 4 seconds

Press ○ for as long as needed.
The indicator on the REC ● button flashes faster after 4 seconds have elapsed The tape pauses when ○ is released.

To make a blank within 4 seconds

Press REC ● while the indicator on the REC ● button is flashing.

Enregistrement (Platine B)

Insertion d'un espace blanc pendant l'enregistrement

Cette opération n'est possible qu'avec la télécommande.

1 **Appuyer sur ○ pendant l'enregistrement au point où l'on souhaite insérer l'espace blanc.**
Le témoin de la touche REC ● clignote et la bande défile sans s'enregistrer 4 secondes plus tard, l'appareil passe en mode de pause d'enregistrement.

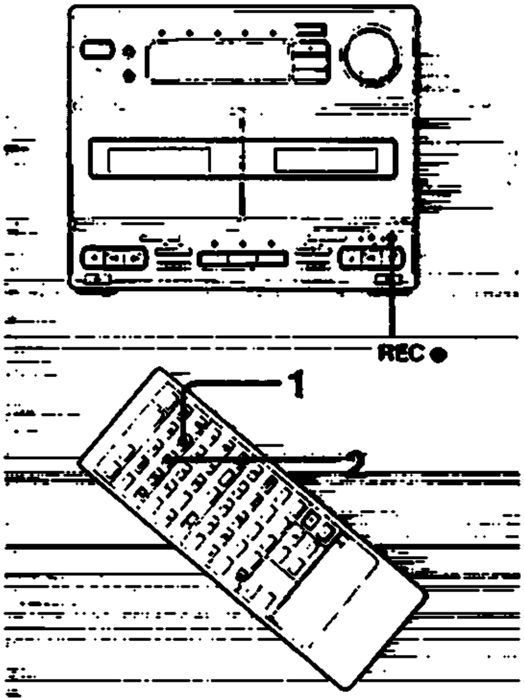
2 **Appuyer sur II au point où l'on souhaite reprendre l'enregistrement.**
L'enregistrement reprend.

Pour créer un blanc de plus de 4 secondes

Appuyer sur ○ aussi longtemps que nécessaire.
Le témoin de la touche REC ● clignote plus rapidement quand 4 secondes se sont écoulées. La bande s'arrête quand on relâche ○.

Pour créer un blanc de moins de 4 secondes

Appuyer sur REC ● pendant que le témoin de la touche REC ● clignote.



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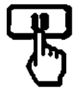


Tape Dubbing (from Deck A to B)

Dubbing the Whole Tape

This operation is not possible with the remote commander

1. **Insert a recorded tape in deck A and a blank tape in deck B.**
2. **Set the DIRECTION selector.**
   To dub on one side: ⇄
   To dub on both sides: ⊂⊃ or RELAY
   (See page 42 "Note on DIRECTION mode setting".)
3. **Press TAPE DUBBING (HIGH SPEED or NORMAL SPEED).**
   To dub at high speed: press HIGH SPEED.
   To dub at normal speed: press NORMAL SPEED
4. **Press ◁ or ▷ to select the direction to be the same on both decks.**
   To dub on one side, choose ◁ or ▷.
   To dub on both sides, choose ▷.
5. **Press PAUSE II.**
   Dubbing starts.

To stop dubbing
Press □.

Note
During high-speed dubbing, only □ is operative.

Copie de cassette (de la platine A vers B)

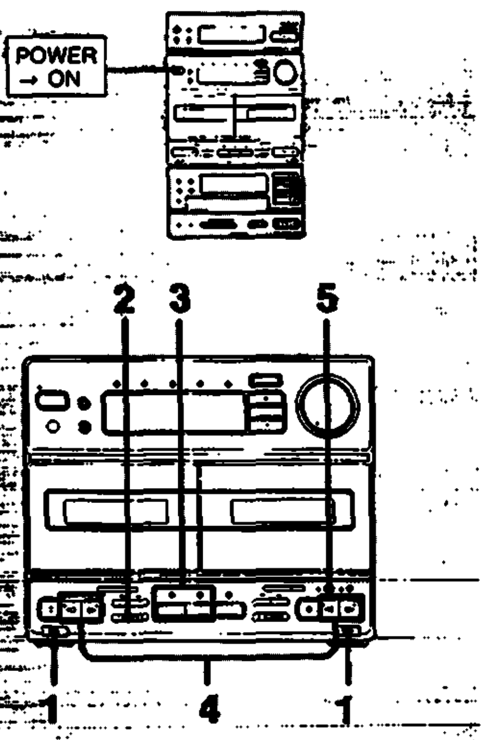
Copie de la totalité d'une cassette

Cette opération n'est pas possible avec la télécommande.

1. **Mettre la cassette enregistrée en place dans la platine A et une cassette enregistrable dans la platine B.**
2. **Régler le sélecteur DIRECTION.**
   Pour copier sur une seule face: ⇄
   Pour copier sur les deux faces de la cassette: ⊂⊃ ou RELAY
   (Voir page 42 "Remarque sur le réglage du sélecteur de mode de défilement (DIRECTION)".)
3. **Appuyer sur TAPE DUBBING (HIGH SPEED ou NORMAL SPEED).**
   Pour copier à vitesse accélérée: appuyer sur HIGH SPEED.
   Pour copier à vitesse normale: appuyer sur NORMAL SPEED.
4. **Appuyer sur ◁ ou ▷ pour sélectionner le même sens de défilement sur les deux platines.**
   Pour copier sur une seule face, sélectionner ◁ ou ▷.
   Pour copier sur les deux faces, sélectionner ▷.
5. **Appuyer sur PAUSE II.**
   La copie est lancée.

Pour arrêter la copie
Appuyer sur □.

Remarque
Pendant la copie à vitesse accélérée, seul □ fonctionne.



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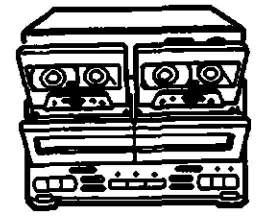

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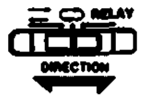

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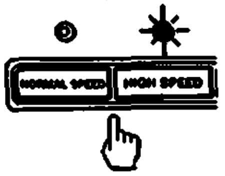

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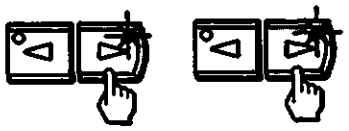


5

Tape Dubbing (from Deck A to B)

Note on DIRECTION mode setting

Position	Operation
⇄	Dubbing stops at the end of one side of the tape.
⟲	When the tape in one deck comes to its end on the front side, it reverses immediately regardless of the tape position in the other deck.
RELAY	When the tape in one deck reaches the end of its front side, it stops until the other tape come to an end, and then both tapes reverse together.

When dubbing starts from the reverse side in the RELAY mode
At the end of the reverse side, dubbing stops automatically.

Copie de cassette (de la platine A vers B)

Remarque sur le réglage du sélecteur de mode de défilement (DIRECTION)

Position	Fonctionnement
⇄	La copie s'arrête à la fin d'une face de la bande.
⟲	Quand la cassette d'une des platines arrive à l'extrémité de la face avant, elle s'inverse immédiatement, quelle que soit la position de celle de l'autre platine.
RELAY	Quand la cassette d'une des platines arrive à l'extrémité de la face avant, elle s'arrête jusqu'à la fin de celle de l'autre platine, et les deux cassettes sont simultanément inversées.

Si la copie commence sur la face inverse en mode RELAY
A la fin de la face inverse, la copie s'arrête automatiquement.

Is it necessary to set DOLBY NR? No. The tape in deck B is automatically recorded in the same state as the tape in deck A.	**Le réglage de l'interrupteur DOLBY NR est-il nécessaire?** Non, car la cassette de la platine B est automatiquement enregistrée dans le même état que celle de la platine A.
If the direction indicator on the play button flashes 3 times and disappears The tab(s) of the cassette inserted into deck B has(have) been removed. Dubbing is not possible on that cassette. Cover the slot with plastic tape. (See page 31.)	**Si le témoin de sens de défilement de la touche de lecture clignote 3 fois et disparaît** Le(s) taquet(s) de la cassette installée dans la platine B a(ont) été brisé(s). La copie ne sera pas possible sur cette cassette. Recouvrir la fente avec un morceau de ruban adhésif. (Voir page 31.)
Is it possible to listen to a program source other than a tape during dubbing? Yes. You can select any program source.	**L'écoute d'une autre source de programme est-elle possible pendant la copie?** Oui On pourra sélectionner n'importe quelle autre source de programme

CD Recording (Deck B)

CD Synchronized Recording – Erase Edit

The Erase Edit Function automatically erases the selection if it ends in the middle at the end of the tape. At the end of side A, the erased selection is played again and recorded from the beginning on side B.
CD playing and tape recording start simultaneously due to the Synchronized Start Function. When you select ⊂⊃ for the DIRECTION mode, you can record both sides automatically once you start recording.

How the Erase Edit Function works A

The player records the selections in the order on the disc(s). If the tape ends in the middle of the selection, the player rewinds the tape to the beginning of the selection. Then the selection is erased. If the recording is to be continued onto the reverse side, the selection which was erased on the front side is recorded again from the beginning on the reverse side.

Erase Edit Operation B

This operation is not possible with the remote commander.

1 **Insert a blank tape into deck B.**

2 **Place the disc(s) in the tray(s). (See page 13.)**

3 **Select the desired playing mode. (See pages 14, 20, 21.)**
If necessary, press DISC SKIP to choose a disc.

Note
Make sure that the total number of selections and total playing time appear in the display.

(to be continued)

Enregistrement d'un disque compact (Platine B)

Enregistrement synchronisé d'un disque compact – Montage avec effacement

La fonction de montage avec effacement efface automatiquement la plage si elle s'interrompt en son milieu à la fin de la bande. La plage effacée à la fin de la face A est relue et elle s'enregistre depuis le début sur la face B.
La lecture du disque compact et l'enregistrement de la bande se déclenchent simultanément grâce à la fonction de démarrage synchronisé. Si l'on sélectionne ⊂⊃ pour le mode de défilement, les deux faces de la cassette s'enregistreront automatiquement quand on déclenche l'enregistrement.

Comment la fonction de montage avec effacement opère-t-elle? A

Le lecteur enregistre les plages dans l'ordre du(des) disque(s). Si la bande se termine au milieu d'une plage, le lecteur rembobine la bande jusqu'au début de cette plage. Puis la plage est effacée. Si l'enregistrement doit se poursuivre sur la face inverse, la plage qui avait été effacée sur la face avant est enregistrée à nouveau depuis le début sur la face inverse.

Opération de montage avec effacement B

Cette opération n'est pas possible avec la télécommande.

1 **Mettre une cassette vierge en place dans la platine B.**

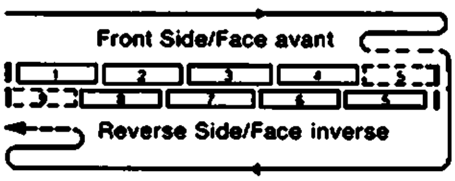
2 **Mettre le(s) disque(s) en place dans le(s) tiroirs. (Voir page 13.)**

3 **Sélectionner le mode de lecture voulu (voir pages 14, 20, 21).**
Si nécessaire, appuyer sur DISC SKIP pour sélectionner un disque.

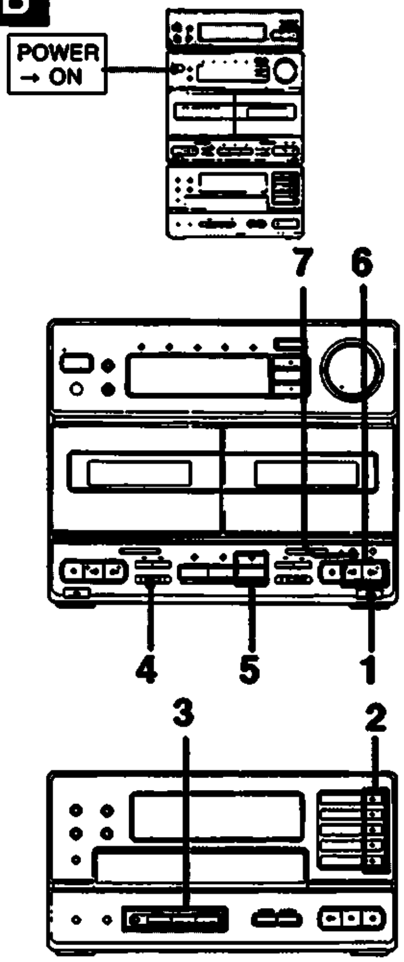
Remarque
S'assurer que le nombre total de plages et la durée de lecture totale apparaissent sur l'affichage.

(à suivre)

A



B



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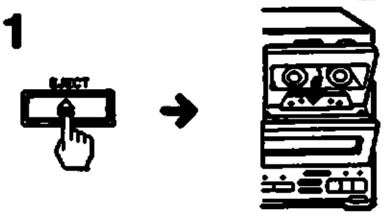

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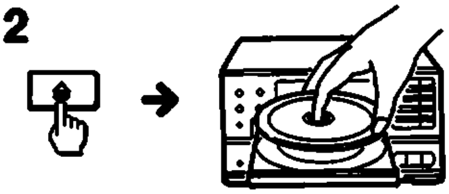

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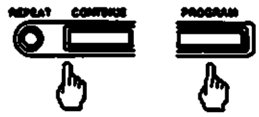


CD Recording (Deck B)

(continued)

4 **Set the DIRECTION selector.**
To record on one side, choose ⇄.
To record on both sides, choose ⊂⊃.

5 **Press CD SYNCHRO.**
Deck B enters in recording pause mode.

6 **If the desired direction indicator on the play button is not illuminated, select the side to be recorded by pressing ◁ or ▷.**
To record on the front side or both sides, press ▷.
To record only on the reverse side, press ◁.

7 **Press PAUSE ❚❚.**
The recording starts. After about 10 seconds, the CD playing starts.

To stop recording
Press □ on the cassette deck and/or the CD player.

Note
If the tab on the cassette has been removed, the CD SYNCHRO button does not operate.

Is it possible to listen to program sources other than CD during CD recording?
No. If you select another function, the CD play stops and the selected program source will be recorded.

When you record more than one disc
The cassette deck automatically runs without recording and then enters recording pause mode while the CD player is changing the disc trays.

Enregistrement d'un disque compact (Platine B)

(suite)

4 **Régler le sélecteur DIRECTION.**
Pour enregistrer sur une seule face, sélectionner ⇄.
Pour enregistrer sur les deux faces, sélectionner ⊂⊃.

5 **Appuyer sur CD SYNCHRO.**
La platine B passe en mode de pause d'enregistrement.

6 **Si le témoin de sens de défilement voulu de la touche de lecture n'est pas allumé, sélectionner la face à enregistrer en appuyant sur ◁ ou ▷.**
Pour enregistrer sur la face avant ou sur les deux faces, appuyer sur ▷.
Pour enregistrer uniquement sur la face inverse, appuyer sur ◁.

7 **Appuyer sur PAUSE ❚❚.**
L'enregistrement commence. 10 secondes plus tard environ, la lecture du disque compact commence.

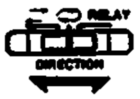
Pour arrêter l'enregistrement
Appuyer sur □ de la platine-cassette et/ou du lecteur CD.

Remarque
Si le taquet de la cassette a été brisé, la touche CD SYNCHRO ne fonctionne pas.

Est-il possible d'écouter une source de programme autre que le CD pendant l'enregistrement d'un CD?
Non. Si l'on sélectionne une autre fonction, la lecture du CD s'arrête et la source de programme sélectionnée s'enregistre.

Pour enregistrer plus d'un disque
La platine-cassette défile automatiquement sans enregistrer, puis elle passe en mode de pause d'enregistrement pendant que le lecteur CD change le plateau du disque.

4



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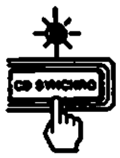

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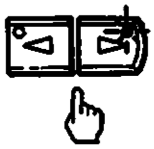


7

CD Recording (Deck B)

Editing the CD for Recording — Tape Select Edit

The Tape Select Edit Function automatically selects and indicates the tape length for each disc which is most suitable for recording onto a tape.

How the Tape Select Edit Function works

The player divides all the selections on a disc into two so that you can record them on sides A and B of a tape, without changing the order of the selections (see illustration **A**). Then the player decides the suitable tape length according to the total playing time for one side (see illustration **B**).
You can record both sides automatically once you start recording when you use the Synchronized Start Function.

The tape length is selected from one of the following choices:

Indication	Tape length (total of both sides)
C-10	10 minutes
C-20	20 minutes
C-30	30 minutes
C-40	40 minutes
C-46	46 minutes
C-50	50 minutes
C-54	54 minutes
C-60	60 minutes
C-64	64 minutes
C-70	70 minutes
C-74	74 minutes
C-80	80 minutes
C-90	90 minutes
OVER C-90*	more than 90 minutes

* When "OVER C-90" appears, you have to decide the tape length according to the total playing time of the longer side.

Notes

- The Tape Select Edit Function does not work for discs which contain more than 31 selections.
- With some discs which contain more than 20 selections, the player does not show the total playing time nor the tape length even after pressing EDIT in step 2 on page 45. In this case, you cannot use the Tape Select Edit Function with that disc.

Enregistrement d'un disque compact (Platine B)

Montage du disque compact en vue de l'enregistrement — Montage par sélection de bande

La fonction de montage par sélection de bande sélectionne et affiche automatiquement la longueur de la bande qui convient le mieux pour l'enregistrement de chaque disque.

Comment la fonction de montage par sélection de bande opère-t-elle?

Le lecteur divise toutes les plages d'un disque en deux de façon qu'il soit possible de les enregistrer sur les faces A et B d'une cassette sans modifier l'ordre des plages (voir le schéma **A**). Puis, le lecteur règle la longueur de bande en fonction du temps de lecture total de chaque face (voir le schéma **B**)
Si l'on déclenche l'enregistrement avec la fonction de démarrage synchronisé, les deux faces s'enregistreront automatiquement.

La longueur de la bande est sélectionnée parmi les options suivantes:

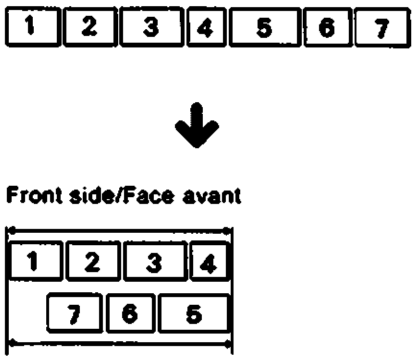
Indication	Longueur de bande (totale pour les deux faces)
C-10	10 minutes
C-20	20 minutes
C-30	30 minutes
C-40	40 minutes
C-46	46 minutes
C-50	50 minutes
C-54	54 minutes
C-60	60 minutes
C-64	64 minutes
C-70	70 minutes
C-74	74 minutes
C-80	80 minutes
C-90	90 minutes
OVER C-90*	plus de 90 minutes

* Si "OVER C-90" apparaît, il faudra sélectionner soi-même la longueur de la bande en fonction du temps de lecture total de la face la plus longue.

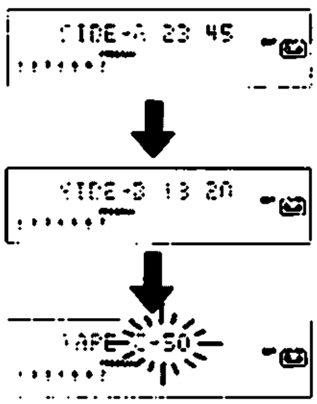
Remarques

- La fonction de montage par sélection de bande n'est pas possible avec les disques qui contiennent plus de 31 plages.
- Avec certains disques qui contiennent plus de 20 plages, le lecteur n'affiche ni le temps de lecture total ni la longueur de la bande même si l'on appuie sur EDIT à l'opération 2 de la page 45. Dans ce cas, la fonction de montage par sélection de bande ne sera pas possible avec ce disque.

A



B



CD Recording (Deck B)

Tape Select Edit operation

1 Place a disc in the disc tray. (See page 13.)
If necessary, press DISC SKIP to choose a disc.

Note
Make sure that the total number of selections and total playing time appear in the display.

2 Press EDIT.
"TAPE SELECT" appears on the display, and the player divides the selections automatically.
Then the display changes as follows:
a total playing time for side A
b total playing time for side B
c the tape length

(to be continued)

Enregistrement d'un disque compact (Platine B)

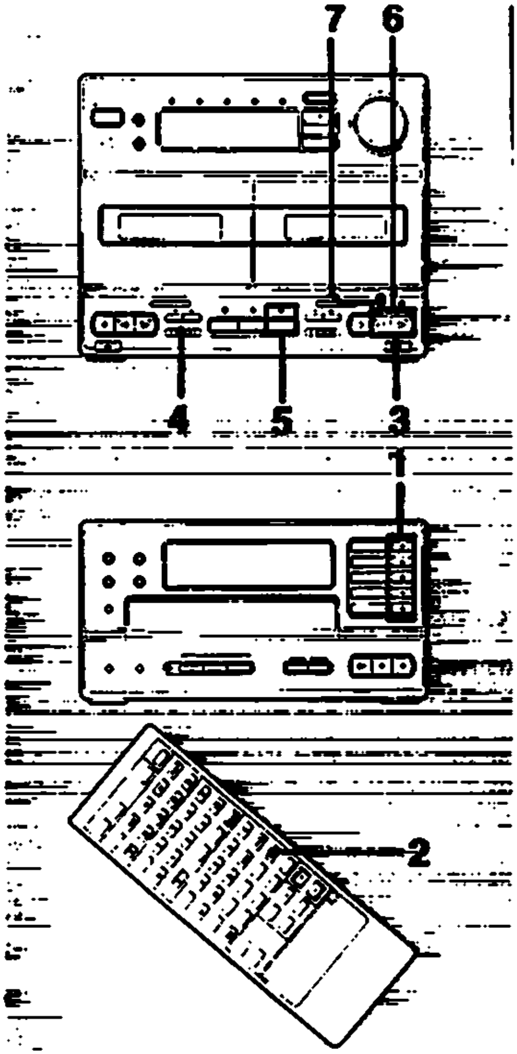
Opération de montage par sélection de bande

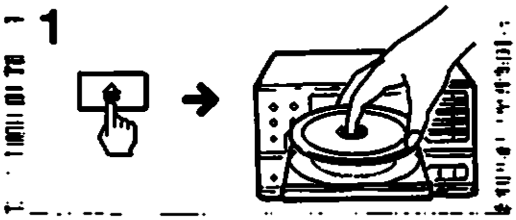
1 Mettre un disque en place dans le tiroir. (Voir page 13.)
Si nécessaire, appuyer sur DISC SKIP pour choisir un disque.

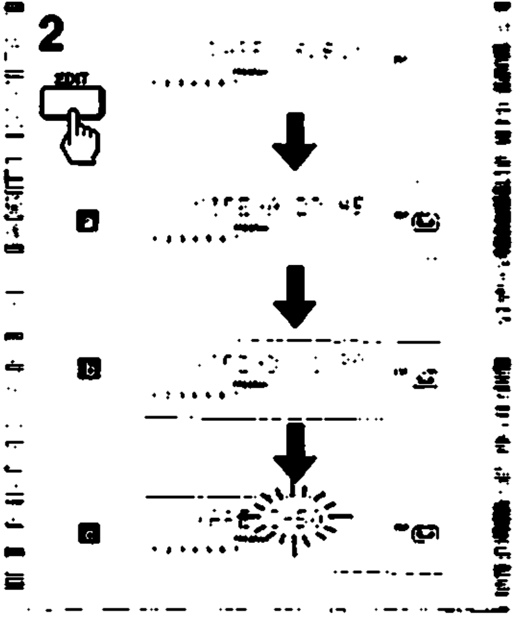
Remarque
S'assurer que le nombre total de plages et la durée de lecture totale apparaissent sur l'affichage

2 Appuyer sur EDIT.
"TAPE SELECT" apparaît sur l'affichage et le lecteur divise les plages automatiquement.
Puis, l'affichage change comme suit.
a temps de lecture total de la face A
b temps de lecture total de la face B
c longueur de la bande

(à suivre)







CD Recording (Deck B)

(continued)

3 **Insert a blank tape of the indicated tape length (or a longer tape) into deck B.**

4 **Set the DIRECTION selector to ⊂⊃.**

5 **Press CD SYNCHRO.**
Deck B enters in the recording pause mode

6 **If the direction indicator on the ▷ button is not illuminated, select the side to be recorded by pressing ▷.**

7 **Press PAUSE ❚❚.**
The recording starts. After about 10 seconds, the CD playing starts.

To stop recording
Press □ on the cassette deck and/or the CD player.

To resume normal play
Press CONTINUE.

To check the program

Press CHECK.
In the display window, "A" appears while checking the program for side A, and "B" appears while checking the program for side B.

Notes

- Do not press any other buttons than those mentioned in the procedure during Tape Select Edit
- When the tab on the cassette has been removed, the CD SYNCHRO button does not operate.

Enregistrement d'un disque compact (Platine B)

(suite)

3 **Mettre en place dans la platine B une cassette vierge de la longueur indiquée (ou plus longue).**

4 **Régler le sélecteur DIRECTION sur ⊂⊃.**

5 **Appuyer sur CD SYNCHRO.**
La platine B passe en mode de pause d'enregistrement

6 **Si le témoin de sens de défilement de la touche ▷ n'est pas allumé, sélectionner la face à enregistrer en appuyant sur ▷.**

7 **Appuyer sur PAUSE ❚❚.**
L'enregistrement commence.
10 secondes plus tard environ, la lecture du disque commence.

Pour arrêter l'enregistrement
Appuyer sur □ de la platine-cassette et/ou *du lecteur CD.*

Pour retourner à la lecture normale
Appuyer sur CONTINUE.

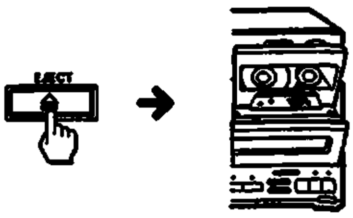
Pour vérifier le contenu du programme

Appuyer sur CHECK.
"A" apparaît sur la fenêtre d'affichage pendant la vérification du contenu du programme de la face A, et "B" apparaît pendant la vérification du contenu du programme de la face B.

Remarques

- N'appuyer sur aucune autre touche que celles mentionnées dans la procédure de montage par sélection de bande.
- La touche CD SYNCHRO ne fonctionne *pas lorsque le taquet de la cassette a été* enlevé.

3



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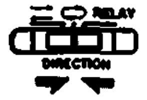

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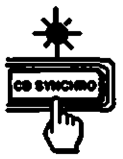

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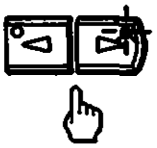


7

Timer-Activated Operation

Setting the Wake-Up Timer

The power can be turned on automatically at a preset time so that you can wake up to music (Wake-Up Timer). One hour later, the power turns off automatically. The preset timer-on time remains until you reset it or you disconnect the power cord

You can preset up to two sets of Wake-Up Timer.

This operation is not possible with the remote commander.

Before setting the timer

- Make sure the clock is set correctly. (See page 10.)

Example:

To set Wake-Up Timer 1 at AM 8:05

(When setting Wake-Up Timer 2, press WAKE UP TIMER 2 instead.)

1. **Press WAKE UP TIMER 1 for more than 2 seconds.**
   "TIMER 1" appears and the hour digits flash on the display window.
2. **Set the hour and minute of the timer-on time by pressing – or +, and MEMORY/NEXT.**
   The program source flashes.

(to be continued)

Déclenchement par minuterie

Réglage de la minuterie de réveil

L'appareil peut se mettre automatiquement sous tension à un moment déterminé à l'avance, ce qui permet de se réveiller en musique (minuterie de réveil). Une heure plus tard, l'appareil passe automatiquement hors tension. L'heure programmée est préservée jusqu'à ce qu'elle soit modifiée ou que le cordon d'alimentation soit débranché.

Il est possible de prérégler un maximum de deux jeux de minuterie de réveil

Cette opération n'est pas possible avec la télécommande.

Avant de régler la minuterie

- S'assurer que l'horloge est correctement réglée. (Voir page 10.)

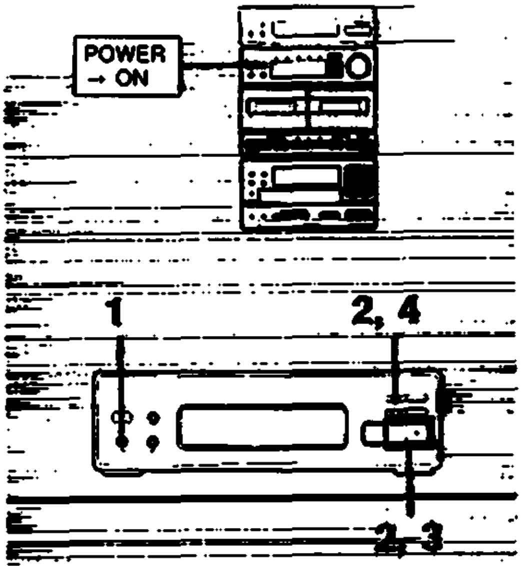
Exemple:

Pour régler la minuterie de réveil 1 à 8:05 du matin

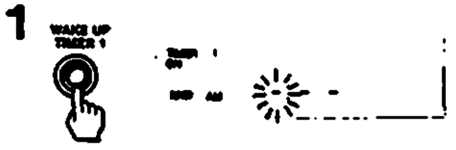
(Pour régler la minuterie de réveil 2, appuyer sur WAKE UP TIMER 2.)

1. **Appuyer sur WAKE UP TIMER 1 pendant plus de 2 secondes.**
   "TIMER 1" apparaît et les chiffres des heures clignotent sur la fenêtre d'affichage.
2. **Régler l'heure et les minutes de mise en marche de la minuterie en appuyant sur – ou + et sur MEMORY/NEXT.**
   La source de programme clignote.

(à suivre)



1



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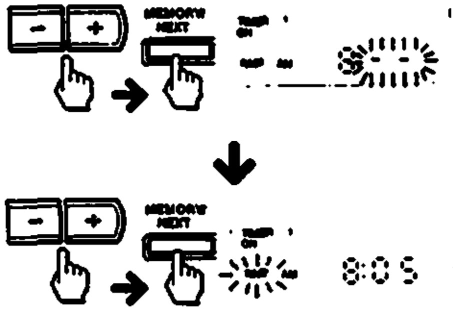


Timer-Activated Operation

(continued)

3 **Select the program source by pressing – or +.**
As you press them, the source changes as follows:

TUNER ↔ CD ↔ TAPE ↔ DAT
↑______________________↑

To listen to the radio
1) Press MEMORY/NEXT. The frequency display appears.
2) Press BAND to choose the desired band.
3) Press – or + to tune in the desired preset station.

To listen to a tape or a DAT
Go to step 4.

To listen to a CD
1) Press MEMORY/NEXT. The selection number display appears.
2) Press – or + to choose the desired selection (only from track numbers 1 to 20).

4 **Press MEMORY/NEXT.**
The preset items appear sequentially.

5 **Prepare the program source by inserting the disc or the tape.**
- For listening to the radio
  You do not have to tune in the station.
- For listening to a tape
  Insert the tape in either deck A or B. (If you insert the tape in both decks, deck A is selected automatically.)
- For listening to a disc
  Insert the disc in the disc tray and press DISC SKIP to select the desired disc.

6 **Press SYSTEM POWER to turn off the system.**
At the timer-on time, the system turns on automatically.

Déclenchement par minuterie

(suite)

3 **Sélectionner la source de programme en appuyant sur – ou +.**
A chaque pression sur les touches, la source change comme suit:

TUNER ↔ CD ↔ TAPE ↔ DAT
↑______________________↑

Pour écouter la radio
1) Appuyer sur MEMORY/NEXT. L'affichage de fréquence apparaît.
2) Appuyer sur BAND pour sélectionner la gamme souhaitée
3) Appuyer sur – ou + pour accorder la station préréglée souhaitée.

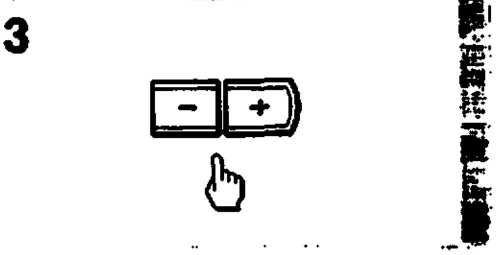
Pour écouter une bande ou un DAT
Aller à l'étape 4.

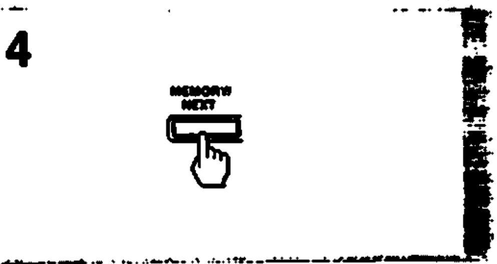
Pour écouter un CD
1) Appuyer sur MEMORY/NEXT
L'affichage de frequence apparaît.
2) Appuyer sur – ou + pour choisir la plage souhaitée (uniquement les plages 1 à 20).

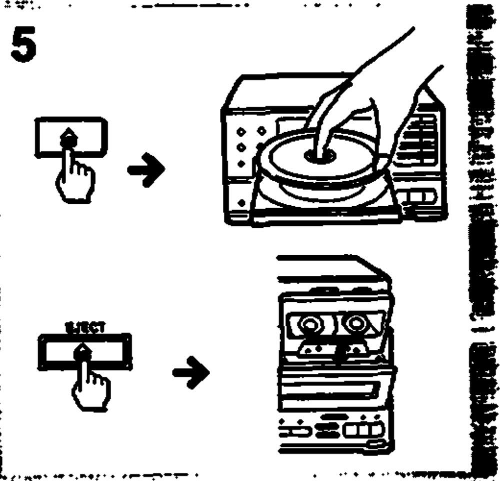
4 **Appuyer sur MEMORY/NEXT.**
Les rubriques préréglées s'affichent les unes après les autres.

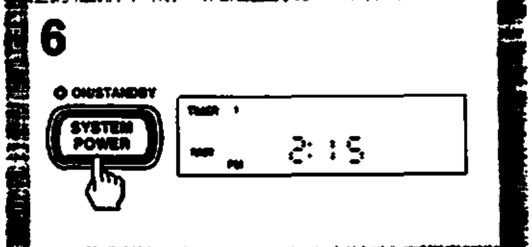
5 **Préparer la source de programme en mettant le disque ou la cassette en place.**
- Pour écouter la radio
  Il n'est pas nécessaire d'accorder la station.
- Pour écouter une cassette
  Mettre la cassette en place dans la platine A ou B.
  (Si l'on met une cassette dans les deux platines, la platine A est automatiquement sélectionnée.)
- Pour écouter un disque
  Mettre le disque en place dans le tiroir du disque et appuyer sur DISC SKIP pour sélectionner le disque

6 **Appuyer sur SYSTEM POWER pour mettre la chaîne hors tension.**
Au moment programmé, la chaîne est automatiquement mise sous tension.









Timer-Activated Operation

Setting the Recording Timer

The power can be tuned on and off automatically so that you can record radio broadcast while you are out.
The recording timer works only once for each setting.

Before setting the timer

- Make sure the clock is set correctly. (See page 10.)
- If you want to record a radio program, be sure to insert a cassette tape that is long enough

This operation is not possible with the remote commander.

1 **Press REC/TIMER for more than 2 seconds.**
"TIMER REC" and "ON" appear and the hour digits flash on the display.

2 **Set the hour and minute of the timer-on time by pressing – or +, and MEMORY/NEXT.**
"OFF" appears and the hour digits flash again.

3 **Set the hour and minute of the timer-off time by pressing – or +, and MEMORY/NEXT.**
The recording equipment indication flashes

4 **Select the recording equipment by pressing – or +, and MEMORY/NEXT.**
The display changes as follows.

TUNER ─┐ → DAT ←─┐
TAPE ←─┘　 TUNER ─┘

(to be continued)

Déclenchement par minuterie

Réglage de la minuterie d'enregistrement

Il est possible de régler l'appareil pour qu'il s'allume et qu'il s'éteigne automatiquement de façon à enregistrer les émissions de radio en cas d'absence.
La minuterie d'enregistrement ne permet qu'un seul réglage à la fois.

Avant de régler la minuterie

- S'assurer que l'horloge est correctement réglée. (Voir page 10.)
- Pour enregistrer une émission de radio, s'assurer que la longueur de la bande est suffisante

Cette opération n'est pas possible sur la télécommande.

1 **Appuyer sur REC/TIMER pendant plus de 2 secondes.**
"TIMER REC" et "ON" apparaissent et les chiffres des heures clignotent sur l'afficheur

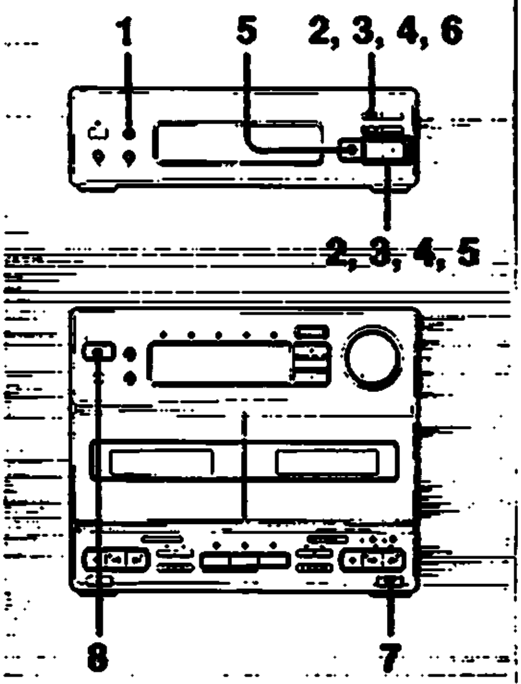
2 **Régler l'heure et les minutes de mise en marche de la minuterie en appuyant sur – ou +, et sur MEMORY/NEXT.**
"OFF" apparaît et les chiffres des heures recommencent à clignoter.

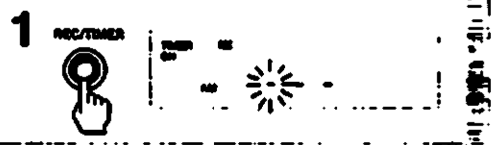
3 **Régler l'heure et les minutes d'arrêt de la minuterie en appuyant sur – ou +, et sur MEMORY/NEXT.**
L'indication de la source d'enregistrement clignote

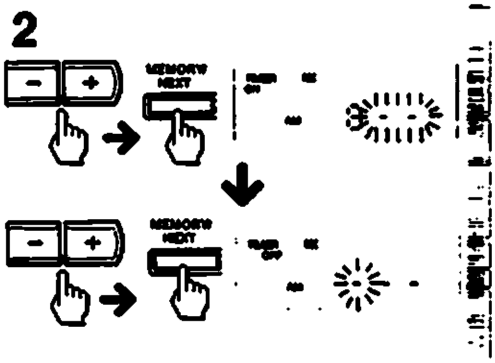
4 **Sélectionner la source d'enregistrement en appuyant sur – ou +, et sur MEMORY/NEXT.**
La pression sur – ou + modifie la source comme suit:

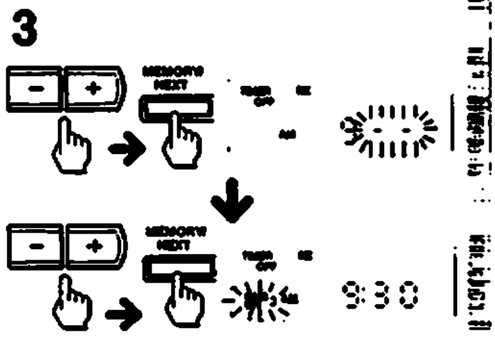
TUNER ─┐ → DAT ←─┐
TAPE ←─┘　 TUNER ─┘

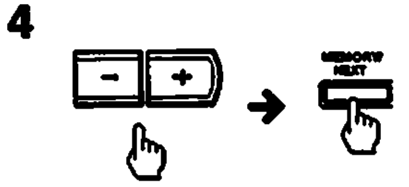
(à suivre)











Timer-Activated Operation

(continued)

5 **Press BAND and – or + to tune in the desired preset station.**

6 **Press MEMORY/NEXT.**
The preset items appear sequentially.

7 **Insert a tape into deck B or a DAT tape in the DAT deck.**
For recording on a tape, select the direction mode and Dolby NR.
For recording on a DAT, set the TIMER switch of the DAT to OFF.

8 **Press SYSTEM POWER to turn off the system.**

Déclenchement par minuterie

(suite)

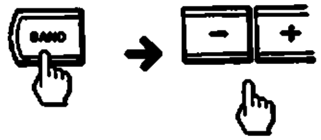
5 **Appuyer sur BAND et sur – ou + pour accorder la station préréglée voulue.**

6 **Appuyer sur MEMORY/NEXT.**
Les paramètres préréglés apparaissent l'un après l'autre.

7 **Mettre une cassette en place dans la platine B ou une cassette DAT dans la platine DAT.**
Pour effectuer un enregistrement sur bande, sélectionner le mode de défilement et le réducteur de bruit Dolby.
Pour effectuer l'enregistrement sur une platine DAT, régler le commutateur TIMER de la platine DAT sur OFF.

8 **Appuyer sur SYSTEM POWER pour éteindre la chaîne.**

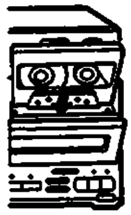
5



6

MEMORY/NEXT

7



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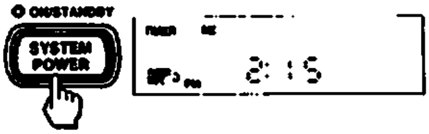


Timer-Activated Operation

To change the time and program

1. Press WAKE UP TIMER 1, 2 or REC/TIMER for more than 2 seconds to choose the timer you want to change
2. Press MEMORY/NEXT until the item to be changed flashes
3. Press – or + to change that item.
4. Press MEMORY/NEXT until the preset items appear sequentially.

When you do not want to use the timer program

Press WAKE UP TIMER 1, 2 or REC/TIMER until "TIMER" disappears

Note
WAKE UP TIMER 1, 2 and REC/TIMER cannot be operated at the same time. If you activate a second timer after one has already been activated, the first timer will be canceled.

When the power is already on at the preset time
The program source automatically changes to the preset one, even if you are playing another program source. However, when you have preset the Recording Timer (REC/TIMER), recording will not start even though the station is tuned in. Be sure to turn off the power before the preset time for tuner recording.

Important

On the playing and recording side of a tape during timer operation
Playback or recording always starts from the front side. When you want to record on only one side, be sure that the side you want to record on is facing you when you insert it.

Déclenchement par minuterie

Pour modifier l'heure et le programme

1. Appuyer sur WAKE UP TIMER 1, 2 ou REC/TIMER pendant plus de 2 secondes pour sélectionner la minuterie que l'on désire modifier
2. Appuyer sur MEMORY/NEXT jusqu'à ce que la rubrique que l'on souhaite modifier clignote.
3. Appuyer sur – ou + pour modifier la rubrique
4. Appuyer sur MEMORY/NEXT jusqu'à ce que les rubriques préréglées apparaissent les unes après les autres.

Si l'on ne souhaite pas utiliser la programmation de la minuterie

Appuyer sur WAKE UP TIMER 1, 2 ou REC/TIMER jusqu'à ce que "TIMER" disparaisse.

Remarque
WAKE UP TIMER 1, 2 et REC/TIMER ne peuvent pas fonctionner en même temps. Si l'on active une seconde minuterie, la première minuterie réglée s'efface.

Si l'appareil est déjà sous tension au moment programmé
La source de programme commute automatiquement sur celle qui est préréglée, même si l'on est en train de lire une autre source de programme. Toutefois, si la minuterie d'enregistrement (REC/TIMER) a été programmée, l'enregistrement ne commencera pas en dépit de la syntonisation de la station. Dès lors, bien veiller à couper l'alimentation avant le moment programmé pour effectuer l'enregistrement d'une émission de radio.

Important

A propos de la face à lire et enregistrer sur la cassette lors d'un déclenchement par minuterie
L'enregistrement ou la lecture commence toujours sur la face avant.
Si l'on ne souhaite enregistrer qu'une seule face, bien veiller à ce que la face que l'on veut enregistrer soit tournée vers soi quand on met la cassette en place

Sleep Timer Operation

By setting the sleep timer, the system power can be turned off after the preset duration (up to 90 minutes).
This operation is possible only with the remote commander.

1 **Play the desired program source.**

2 **Press SLEEP to select the desired duration in minutes.**
As you press SLEEP, the indication changes as follows:

90 → 80 → ... → 10 → --

To turn off the system before the system is turned off by the sleep timer

Press SYSTEM POWER

To check the remaining time before the sleep timer turns off the system

Press SLEEP once, and the remaining time appears. The display returns to the previous indication automatically after several seconds.

Fonctionnement par minuterie d'arrêt

La programmation de la minuterie d'arrêt permet de mettre l'appareil hors tension après une durée déterminée (90 minutes maximum).
Cette opération n'est possible qu'avec la télécommande.

1 **Reproduire la source de programme souhaitée.**

2 **Appuyer sur SLEEP pour régler la durée de fonctionnement en minutes.**
A chaque pression sur SLEEP, l'affichage change comme suit

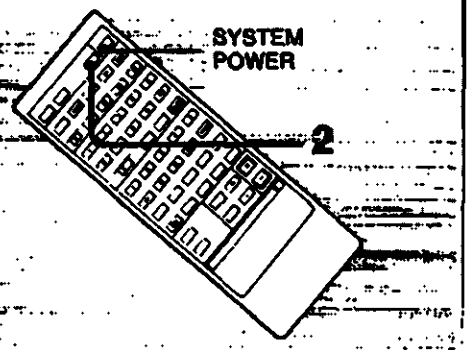
90 → 80 → .... → 10 → --

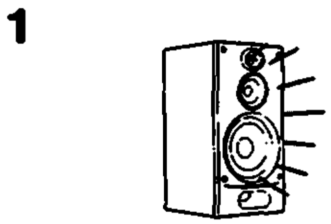
Pour mettre la chaîne hors tension avant l'heure programmée

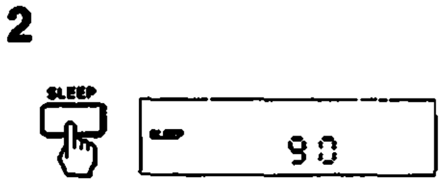
Appuyer sur SYSTEM POWER.

Pour vérifier le temps restant avant la mise hors tension par minuterie d'arrêt

Appuyer une fois sur SLEEP et le temps *restant apparaît. L'affichage repasse* automatiquement à l'indication antérieure au bout de quelques secondes.







Maintenance

Cleaning the Heads and the Tape Paths A

Clean after every 10 hours of operation and before recording for optimum record/playback quality.

1. Press ⏏ EJECT to open the cassette holders
2. Slightly moisten the tip of a cotton swab with cleaning fluid or alcohol.
3. Wipe the parts shown in the illustration:
   - a Capstan
   - b Erase head
   - c Record/playback head
   - d Pinch roller

Do not insert a cassette until cleaned areas are completely dry.

Demagnetizing the Heads

After 20 to 30 hours of use, it is necessary to remove residual magnetism built up on the head using any commercially available demagnetizer.
For demagnetizing procedure, refer to the instruction manual of the demagnetizer.

Cleaning Discs B

When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out
Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for analog discs.

Cleaning the Cabinet

Use a soft cloth slightly moistened with mild detergent solution

Entretien

Nettoyage des têtes et du trajet de bande A

Procéder à ce nettoyage toutes les 10 heures d'exploitation et avant un enregistrement pour obtenir des résultats optimums d'enregistrement/lecture.

1. Appuyer sur ⏏ EJECT pour ouvrir les logements de cassette.
2. Tremper légèrement un coton-tige dans un liquide de nettoyage ou de l'alcool.
3. Frotter les organes, indiqués sur l'illustration:
   - a Cabestan
   - b Tête d'effacement
   - c Tête d'enregistrement/lecture
   - d Galet presseur

Attendre que les organes nettoyés soient parfaitement secs avant d'introduire une cassette.

Démagnétisation des têtes

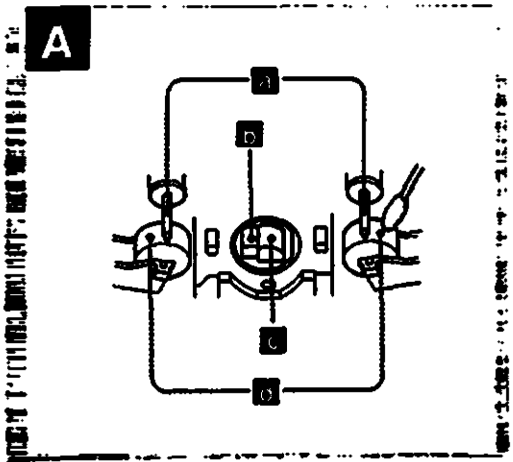
Toutes les 20 à 30 heures d'exploitation, il est nécessaire d'éliminer le magnétisme résiduel, accumulé sur les têtes, en se servant d'un démagnétiseur vendu dans le commerce.
En ce qui concerne la marche à suivre, prière de consulter le mode d'emploi du démagnétiseur utilisé.

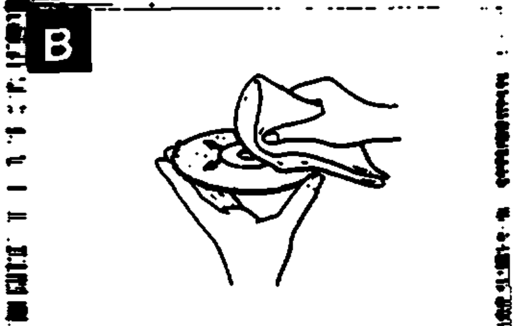
Nettoyage des disques compacts B

Quand un disque compact est sale, le nettoyer à l'aide d'un chiffon propre en l'essuyant du centre vers la périphérie
Ne pas utiliser de solvant, tel que benzine, diluant ou produit de nettoyage vendu dans le commerce, ou des vaporisateurs anti-électricité statique, destinés à des disques analogiques.

Nettoyage du coffret

Utiliser un linge doux, légèrement trempé dans une solution savonneuse douce.





Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads both channels driven, from 80 — 20,000 Hz; rated 40 watts per channel minimum RMS power, with no more than 1% total harmonic distortion from 250 milliwatts to rated output.

Tuner Section (ST-H2750)

System	FM stereo, AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 — 108 MHz
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10 7 MHz
AM tuner section	
Tuning range	530 — 1,710 kHz (with the AM tuning interval set at 10 kHz) 531 — 1,710 kHz (with the AM tuning interval at 9 kHz)
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz

Amplifier Section (DXA-H2750)

Continuous RMS power output	45 + 45 watts (6 ohms at 1 kHz, 5% THD) 40 + 40 watts (6 ohms at 80 Hz — 20 kHz, 1% THD)
Inputs	DAT IN (phono jacks). sensitivity 450 mV, impedance 47 kilohms VIDEO IN (phono jacks) sensitivity 450 mV, impedance 47 kilohms
Outputs	HEADPHONES (stereo minijack)· accepts headphones of 8 ohms or more SPEAKERS. accepts speakers of 6 to 16 ohms

Cassette Deck Section (DXA-H2750)

Recording system	4-track 2-channel stereo
Frequency response	(DOLBY NR OFF) 40 — 13,000 Hz (±3 dB), using TYPE I cassette (Sony HF-S) 40 — 14,000 Hz (±3 dB), using TYPE II cassette 40 — 15,000 Hz (±3 dB) using TYPE IV cassette
Wow and flutter	0.1% WRMS ±0 3% (DIN)

Spécifications

Section tuner (ST-H2750)

Système	Tuner superhétérodyne AM, FM stéréo
Section tuner FM	
Plage d'accord	87,5 — 108 MHz
Bornes d'antenne	75 ohms asymétrique
Fréquence intermédiaire	10,7 MHz
Section tuner AM	
Plage d'accord	530 — 1 710 kHz (Intervalle d'accord AM 10 kHz) 531 — 1 710 kHz (Intervalle d'accord AM 9 kHz)
Antenne	Antenne cadre AM, Bornes d'antenne extérieure
Fréquence intermédiaire	450 kHz

Section amplificateur (DXA-H2750)

Puissance de sortie efficace en continu	45 + 45 watts (6 ohms à 1 kHz, DHT 5%) 40 + 40 watts (6 ohms à 80 Hz — 20 kHz, DHT 1%)
Entrées	DAT IN (prises Cinch)· sensibilité 450 mV, impédance 47 kilohms VIDEO IN (prises Cinch)· sensibilité 450 mV, impédance 47 kilohms
Sorties	HEADPHONES (jack stéréo). accepte les casques de 8 ohms et plus SPEAKERS. accepte les haut-parleurs de 6 à 16 ohms

Section platine-cassette (DXA-H2750)

Système d'enregistrement	4 pistes, 2 canaux stéréo
Réponse en fréquence	(Circuit Dolby coupé) 40 — 13 000 Hz (±3 dB), avec cassette TYPE I (Sony HF-S) 40 — 14 000 Hz (±3 dB), avec cassette TYPE II 40 — 15 000 Hz (±3 dB), avec cassette TYPE IV
Pleurage et scintillement	0,1% efficace ±0,3% (DIN)

Specifications

Compact Disc Player Section (CDP-H3750)

System	Compact disc digital audio system
Laser	Semiconductor laser (λ = 780 nm) Emission duration continuous
Laser output	Max. 44.6 μW* * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block
Signal to noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.05% (at 1 kHz)
Channel seperation	More than 90 dB
Output level	1.6 V (at 50 kilohms)
Load impedance	More than 10 kilohms

Speaker Section (SS-H2750)

Speaker system	3-way
Speaker units	Woofer. 14 cm ($5\frac{1}{2}$ in.), cone type Tweeter 6 cm ($2\frac{3}{8}$ in.), cone type Super tweeter 2 cm ($\frac{13}{16}$ in.), dome type
Sensitivity	89 dB/W/m
Effective frequency range	55 — 20.000 Hz
Rated impedance	6 ohms
Dimensions	Approx. 185 x 365 x 225 mm ($7\frac{3}{8}$ x $14\frac{3}{8}$ x $8\frac{7}{8}$ in.)
Weight	Approx. 4.1 kg (9 lb 1 oz)

General

Power requirements	120 V AC, 60 Hz
Power consumption	For U.S.A. 105 watts For Canada 115 watts
Dimensions	Approx. 225 x 365 x 310 mm (w/h/d) ($8\frac{7}{8}$ x $14\frac{3}{8}$ x $12\frac{1}{4}$ in.) incl. projecting parts and controls
Weight	Approx. 11.3 kg (24 lb 15 oz)
Supplied accessories	Remote Commander (1) Sony SUM-3 (NS) batteries (2) AM loop antenna (1) FM antenna (1) AC power cord (1) Flat cord (2) Speaker cord (2)

Design and specifications subject to change without notice.

Spécifications

Section lecteur CD (CDP-H3750)

Système	Système audio-numérique de disque compact
Laser	Semiconducteur (λ = 780 nm) Durée d'émission: continue
Sortie laser	Max. 44,6 μW* * Cette sortie correspond à une valeur mesurée à une distance d'environ 200 mm de la surface de l'objectif sur le bloc du capteur optique
Rapport signal/bruit	Supérieur à 90 dB
Plage dynamique	Supérieure à 90 dB
Distorsion harmonique	Inférieure à 0,05% (à 1 kHz)
Séparation des canaux	Supérieure à 90 dB
Niveau de sortie	1,6 V (à 50 kilohms)
Impédance de charge	Supérieure à 10 kilohms

Section haut-parleur (SS-H2750)

Système	3 voies
Haut-parleurs	Boomer 14 cm diam ($5\frac{1}{2}$ pouces), type à cône Tweeter 6 cm diam ($2\frac{3}{8}$ pouces), type à cône Super tweeter 2 cm diam ($\frac{13}{16}$ pouce), type à dôme
Sensibilité	89 dB/W/m
Plage de fréquence efficace	55 — 20 000 Hz
Impédance nominale	6 ohms
Dimensions	Environ 185 x 365 x 225 mm ($7\frac{3}{8}$ x $14\frac{3}{8}$ x $8\frac{7}{8}$ pouces)
Poids	Environ 4,1 kg

Données générales

Alimentation électrique	120 V CA, 60 Hz
Consommation électrique	Pour les Etats-Unis 105 watts Pour le Canada 115 watts
Dimensions	Environ 225 x 365 x 310 mm (l/h/p) ($8\frac{7}{8}$ x $14\frac{3}{8}$ x $12\frac{1}{4}$ pouces), y compris les organes et commandes faisant saillie
Poids	Environ 11.3 kg
Accessoires fournis	Télécommande (1) Piles Sony SUM-3 (NS) (2) Antenne cadre AM (1) Antenne FM (1) Cordon d'alimentation secteur (1) Cordon plat (2) Cordon d'enceinte (2)

La conception et les spécifications sont sujettes à modifications sans préavis.

Troubleshooting Guide

The following checks will assist in the correction of most problems which you may encounter with your system. Before going through the check list below, first check the following points.

- **The power cord must be connected firmly.**
- **The speaker connection must also be firm.**

Should any problem persist after you have made these checks, consult your nearest Sony dealer

Radio Reception

Symptom	Cause (and Remedy)
The TUNED indicator flashes.	● Adjust the antenna.
The STEREO indicator flashes.	● Adjust the antenna.
Severe hum or noise.	● Adjust the antenna. ● The signal strength is too weak. Connect the external antenna. (See page 8.) ● Connect the ground wire. ● You may hear some noise when you press OPEN/CLOSE ⏏ of the CD player.
The stereo FM program cannot be received in stereo.	● Press STEREO/MONO so that "STEREO" disappears. (See page 26.)

Cassette Deck Operation

Symptom	Cause (and Remedy)
Recording cannot be made.	● No cassette in the cassette holder. ● The tab is removed from the cassette. (See page 31.) ● The tape is wound completely.
Recording or playback cannot be made or there is a decrease in sound level.	● Dirty head. (See page 54.) ● Magnetic build-up on the record/playback head. (See page 54.)
Excessive wow or flutter, or sound dropout.	● Contamination of the capstans or pinch rollers. (See page 54.)
Insufficient erasure.	● Magnetic build-up on the erase head. (See page 54.)
Increase of noise or erase of high frequencies.	● Magnetic build-up on the erase head. (See page 54.)

(to be continued)

Troubleshooting Guide

(continued)

CD Player Operation

Symptom	Cause (and Remedy)
The disc tray does not close.	● The disc is not placed correctly.
Play does not start.	● Dirty disc (See page 54.) ● The disc is inserted upside down. ● The player is in the pause mode ● Moisture condensation. (See page 6.)
"NO DISC" is displayed.	● There is no disc in the player.
Play does not start from the first selection.	● The player is in the PROGRAM or SHUFFLE mode. Press CONTINUE.
"OVER" is displayed.	● ▶▶▷▷I was continuously pressed at the end of the disc Press I◁◁◀◀ to return to the normal indication
"CD OFF" is displayed.	● Tuner is selected for the program source.

General

Symptom	Cause (and Remedy)
No sound.	● Turn VOLUME clockwise. ● The headphones are connected. Disconnect them
No sound from one channel or unbalanced left and right volume.	● Check the speaker connections of the inoperative channel
Reversed left and right sound.	● Check the speaker cord connection and speaker location.
Lack of bass sound or apparently imprecise physical location of musical instruments.	● Check the speaker connection for proper phasing.
Severe hum or noise.	● The TV or VCR is too close to the stereo system Separate the stereo system from the TV or VCR.

Guide de dépannage

Un examen des points suivants permettra de résoudre la plupart des difficultés que l'on pourrait rencontrer lors de l'emploi de la chaîne stéréo. Avant de passer en revue cette liste, prière d'examiner les points suivants·

- Le cordon d'alimentation doit être bien branché.
- Le branchement des cordons des enceintes doit être correctement effectué.

Si l'on ne parvient pas à porter remède à l'anomalie, s'adresser à un concessionnaire Sony.

Reception radio

Symptôme	Cause (et remède)
L'indicateur TUNED clignote.	● Ajuster l'antenne.
L'indicateur STEREO clignote.	● Ajuster l'antenne.
Ronflement et parasites importants	● Ajuster l'antenne ● L'intensité du signal est trop faible. Raccorder une antenne extérieure. (Voir page 8.) ● Raccorder un fil de mise à la terre. ● On risque d'entendre un léger bruit quand on appuie sur OPEN/CLOSE ≙ du lecteur CD.
Impossible de recevoir en stéréo une émission FM stéréo.	● Appuyer sur STEREO/MONO de manière à ce que "STEREO" disparaisse. (Voir page 26.)

Platine-cassette

Symptôme	Cause (et remède)
Impossible d'enregistrer.	● Pas de cassette dans le logement. ● La cassette n'a plus ses taquets protecteurs. (Voir page 31.) ● La bande est complètement bobinée.
Enregistrement ou lecture impossible ou chute du niveau sonore.	● Têtes magnétiques sales. (Voir page 54.) ● Encrassement magnétique de la tête d'enregistrement/lecture. (Voir page 54.)
Pleurage et scintillement excessifs, ou pertes du son	● Contamination des cabestans ou galets presseurs (Voir page 54.)
Effacement insuffisant.	● Encrassement magnétique de la tête d'effacement. (Voir page 54.)
Augmentation du bruit ou effacement des hautes fréquences	● Encrassement magnétique de la tête d'effacement. (Voir page 54.)

(à suivre)

Guide de dépannage

(suite)

Lecteur CD

Symptôme	Cause (et remède)
Le plateau du disque ne se referme pas.	● Le disque n'est pas correctement mis en place
La lecture ne commence pas.	● Le disque est sale (Voir page 54.) ● Le disque est mis en place à l'envers. ● Le lecteur est en mode de pause ● Condensation (Voir page 6)
"NO DISC" apparaît.	● Absence de disque dans le lecteur
La lecture ne commence pas à la première plage.	● Le lecteur est en mode de lecture programmée (PROGRAM) ou aléatoire (SHUFFLE). Appuyer sur CONTINUE
"OVER" apparaît.	● ▶▶▷▷▮ a été maintenu enfoncé jusqu'à la fin du disque Appuyer sur ▮◁◁◀◀ pour revenir à un affichage normal.
"CD OFF" est affiché.	● Le tuner a été sélectionné comme source de programme

Généralités

Symptôme	Cause (et remède)
Absence de son.	● Tourner VOLUME dans le sens des aiguilles d'une montre ● Le casque est branché Le débrancher
Absence de son à un canal ou volume des canaux gauche et droit asymétrique.	● Vérifier le branchement de l'enceinte du canal qui ne fonctionne pas.
Son inversé des canaux gauche et droit.	● Vérifier le branchement des cordons des enceintes et l'emplacement des enceintes
Manque des graves et localisation physique imprécise des instruments de musique.	● Vérifier la mise en phase des enceintes
Ronflement ou parasites importants	● Un téléviseur ou un magnétoscope est trop près de la chaîne stéréo Séparer ces éléments par rapport à la chaîne

Parts Identification

Refer to the pages indicated in ● for use of the buttons

Tuner Section A

1 Remote control sensor
2 REC/TIMER button ●
3 Display window
4 MEMORY/NEXT button ● ● ● ●
5 STEREO/MONO (stereo/monaural) button ●
6 MODE button and TUNING/PRESET indicators ● ● ●
7 TUNING PRESET/TIMER –/+ buttons
8 BAND selector ●
9 WAKE UP TIMER 1, 2 /CLOCK SET buttons ● ●

CD Changer Section B

1 CHARACTER ◁/▷ buttons ●
2 MEMO INPUT button ●
3 CURSOR button ●
4 Display window
5 Disc tray door
6 DISC 1 — 5 selectors and disc tray indicators ● ●
7 OPEN/CLOSE ⏏ buttons ●
8 CD operation buttons
    ■: Stop button
    ❚❚: Pause button
    ▷: Play button
    |◁◁◀◀ ▶▶▷▷|: Manual search (when kept depressed)/AMS (when pressed) buttons
9 PLAY MODE buttons
    PROGRAM button ●
    SHUFFLE button ●
    CONTINUE button ●
10 REPEAT button ●
11 TIME/MEMO button ● ●
12 SOUND FIELD FILE button ●
13 ERASE button ● ●

Nomenclature

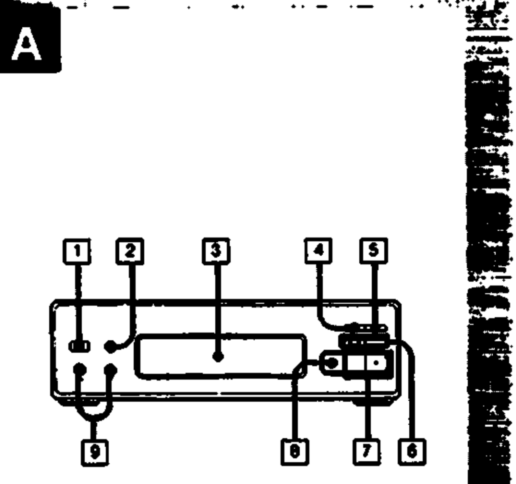
Pour des explications sur l'utilisation des commandes, prière de consulter les pages indiquées en ●

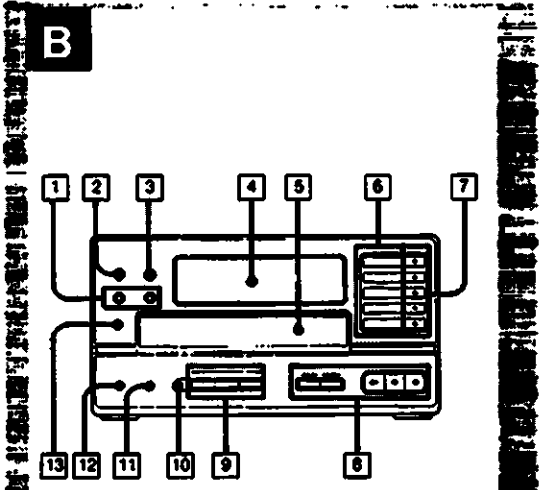
Section tuner A

1 Détecteur de télécommande
2 Touche d'enregistrement par minuterie (REC/TIMER) ●
3 Fenêtre d'affichage
4 Touche de mémoire/réglage suivant (MEMORY/NEXT) ● ● ● ●
5 Touche stéréo/mono (STEREO/MONO) ●
6 Touche de mode (MODE) et témoins d'accord/préréglage (TUNING/PRESET) ● ● ●
7 Touche d'exploration des stations présélectionnées/minuterie (TUNING PRESET/TIMER –/+)
8 Sélecteur de gamme (BAND) ●
9 Touches de réglage de réveil 1, 2/horloge (WAKE UP TIMER 1, 2/CLOCK SET) ● ●

Section changeur de disques compacts B

1 Touches de caractères (CHARACTER ◁/▷) ●
2 Touche d'entrée de mémoire (MEMO INPUT) ●
3 Touche de curseur (CURSOR) ●
4 Fenêtre d'affichage
5 Volet du tiroir du disque
6 Sélecteurs et témoins de disques (DISC 1 — 5) ● ●
7 Touches d'ouverture/fermeture (OPEN/CLOSE ⏏) ●
8 Touches d'exploitation du CD
    ■: Touche d'arrêt
    ❚❚: Touche de pause
    ▷: Touche de lecture
    |◁◁◀◀ ▶▶▷▷|: Touches de recherche manuelle (maintenues enfoncées)/AMS (enfoncées)
9 Touches de mode de lecture (PLAY MODE)
    Touche de lecture programmée (PROGRAM) ●
    Touche de lecture aléatoire (SHUFFLE) ●
    Touche de lecture continue (CONTINUE) ●
10 Touche de répétition (REPEAT) ●
11 Touche de temps/mémoire (TIME/MEMO) ● ●
12 Touche de fichier de champ sonore (SOUND FIELD FILE) ●
13 Touche d'effacement (ERASE) ● ●





Parts Identification

Amplifier/Cassette Deck Section C

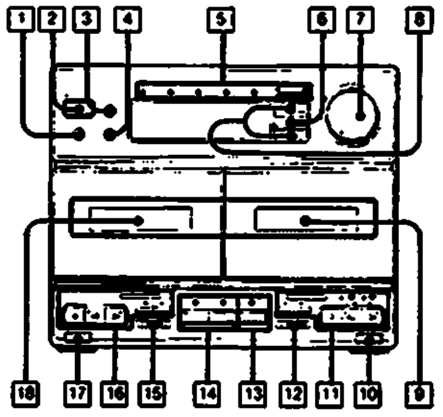
- 1 HEADPHONES jack (stereo minijack)
- 2 SYSTEM POWER switch and STANDBY indicator
  The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 3 DISPLAY button ●
- 4 DIRECT button and indicator ●
- 5 FUNCTION button and function indicators ● ●
- 6 PRESET button ●
- 7 VOLUME control ●
- 8 TOTAL EFFECT CONTROL –/+ buttons ●
- 9 Cassette holder (Deck B)
- 10 EJECT ⏏ button (Deck B)
- 11 Tape operation buttons (for Deck B)
  - □: Stop button
  - ▷: Forward play button and indicator
  - ◁: Reverse play button and indicator
  - ◀◀ ▶▶: Fast winding buttons
  - PAUSE ❚❚ button and indicator
  - REC ● button and indicator
- 12 DOLBY NR (Dolby Noise Reduction) switch ●
- 13 CD SYNCHRO button ● ●
- 14 TAPE DUBBING buttons ●
  - NORMAL SPEED button
  - HIGH SPEED button
- 15 DIRECTION mode selector ● ●
- 16 Tape operation buttons (for Deck A)
  - □: Stop button
  - ▷: Forward play button and indicator
  - ◁: Reverse play button and indicator
  - ◀◀ ▶▶: Fast winding buttons
- 17 EJECT ⏏ button (Deck A)
- 18 Cassette holder (Deck A)

Nomenclature

Section amplificateur/platine-cassette C

- 1 Prise de casque (HEADPHONES) (jack stéréo)
- 2 Interrupteur d'alimentation de la chaîne (SYSTEM POWER) et témoin d'attente (STANDBY)
  Le témoin reste allumé tant que le cordon d'alimentation reste branché dans une prise secteur.
- 3 Touche d'affichage (DISPLAY) ●
- 4 Touche et témoin de sélection directe (DIRECT) ●
- 5 Touche de fonction (FUNCTION) et témoins de fonction ● ●
- 6 Touche de préréglage (PRESET) ●
- 7 Potentiomètre de volume (VOLUME) ●
- 8 Commandes d'effet total –/+ (TOTAL EFFECT CONTROL) ●
- 9 Logement de cassette (platine B)
- 10 Touche d'éjection (EJECT ⏏) (platine B)
- 11 Touches d'exploitation de la bande (pour la platine B)
  - □: Touche d'arrêt
  - ▷: Touche et témoin de lecture avant
  - ◁: Touche et témoin de lecture arrière
  - ◀◀ ▶▶: Touches de bobinage rapide
  - Touche et témoin de pause (PAUSE ❚❚)
  - Touche et témoin d'enregistrement (REC ●)
- 12 Commutateur de réduction de bruit Dolby (DOLBY NR) ●
- 13 Touche de sychronisation de CD (CD SYNCHRO) ● ●
- 14 Touches de copie de cassette (TAPE DUBBING) ●
  - Touche de vitesse normale (NORMAL SPEED)
  - Touche de vitesse accélérée (HIGH SPEED)
- 15 Sélecteur de sens de défilement (DIRECTION) ● ●
- 16 Touches d'exploitation de la bande (pour la platine A)
  - □: Touche d'arrêt
  - ▷: Touche et témoin de lecture avant
  - ◁: Touche et témoin de lecture arrière
  - ◀◀ ▶▶: Touches de bobinage rapide
- 17 Touche d'éjection (EJECT ⏏) (platine A)
- 18 Logement de cassette (platine A)

C



Parts Identification

Remote Commander D

1 DISPLAY button ●
2 CLOCK DISPLAY button ●
3 TAPE selection button
4 DECK A/B selector
5 TUNER/EQ/CD numeric buttons function selector ● ● ● ● ●
6 TUNER selection button
7 CD player operation buttons
8 CD playing mode buttons
9 CD selection button
10 TIME button ● ●
11 DAT selection button
12 VIDEO selection button
13 SLEEP button ●
14 SYSTEM POWER switch
15 Cassette deck operation buttons
16 Tuner/equalizer/CD numeric buttons ● ● ● ● ●
17 BAND button ●
18 DISC 1 — 5 selectors ● ●
19 DISC SKIP button ●
20 EDIT button ●
21 CLEAR button ●
22 CHECK button ●
23 VOLUME +/– buttons ●
24 TOTAL EFFECT CONTROL +/– buttons ●
25 MEMORY button ●
26 DIRECT button ●

Nomenclature

Télécommande D

1 Touche d'affichage (DISPLAY) ●
2 Touche d'affichage d'horloge (CLOCK DISPLAY) ●
3 Touche de sélection de bande (TAPE)
4 Sélecteur de platine A/B (DECK A/B)
5 Sélecteur de fonction des touches numériques du tuner/égaliseur/lecteur CD (TUNER/EQ/CD) ● ● ● ● ●
6 Touche de sélection du tuner (TUNER)
7 Touches d'exploitation du lecteur CD
8 Touches de mode de lecture du CD
9 Touche de sélection du CD (CD)
10 Touche de durée (TIME) ● ●
11 Touche de sélection de platine DAT (DAT)
12 Touche de sélection magnétoscope (VIDEO)
13 Touche de minuterie d'arrêt (SLEEP) ●
14 Interrupteur d'alimentation de la chaîne (SYSTEM POWER)
15 Touches d'exploitation de la platine-cassette
16 Touches numériques du tuner/égaliseur/lecteur CD ● ● ● ● ●
17 Touche de gamme (BAND) ●
18 Sélecteurs de disque (DISC 1 — 5) ● ●
19 Touche de saut de disque (DISC SKIP) ●
20 Touche de montage (EDIT) ●
21 Touche d'effacement (CLEAR) ●
22 Touche de vérification (CHECK) ●
23 Potentiomètres de volume (VOLUME +/–) ●
24 Commandes d'effet total (TOTAL EFECT CONTROL +/–) ●
25 Touche de mémoire (MEMORY) ●
26 Touche de sélection directe (DIRECT) ●

D